

**EFFECTIVENESS OF YOGA THERAPY ON ANXIETY
AMONG PATIENTS WITH BREAST CANCER
AT SELECTED HOSPITAL, TRICHY.**

By

SMITHA T.V



**A DISSERTATION SUBMITTED TO THE TAMILNADU
DR.M.G.R. MEDICAL UNIVERSITY, CHENNAI
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE DEGREE OF MASTER OF SCIENCE
IN NURSING**

APRIL 2016

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CERTIFICATE

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that the Ethical committee of Dr. G. Sakunthala College of Nursing has discussed with its members about the topic “To assess the Effectiveness of Yoga therapy on anxiety among patients with breast cancer at selected hospital, Trichy” during the year 2015-2016 opted by **Ms. SMITHA T.V** and its implication on study subjects for her thesis for M.Sc. Nursing programme and the committee passed clearance for the same topic for her to pursue.

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ABSTRACT

STATEMENT OF THE PROBLEM

A quasi experimental study to assess the effectiveness of yoga therapy on anxiety among patients with breast cancer at selected hospitals, Trichy, 2015-2016.

OBJECTIVES

1. To assess the pre test level of anxiety among patients with breast cancer in control group and experimental group.
2. To assess the effectiveness of yoga therapy on the level of anxiety among patients with breast cancer in experimental group.
3. To compare the mean post test level of anxiety among patients with breast cancer in control group and experimental group.
4. To determine the association between the selected demographic variables with the pre test level of anxiety among breast cancer patient in control group
5. To determine the association between the selected demographic variables with the pre test level of anxiety among breast cancer patient in experimental group.

HYPOTHESIS

- H₁ : There will be a significant difference in anxiety among patients with breast cancer after yoga in experimental group
- H₂ : There will be a significant difference in post test level of anxiety among patients with breast cancer in control and experimental group.
- H₃ : There will be a significant association between the selected demographic variables with the pre test level of anxiety among patients with breast cancer in control group.
- H₄ : There will be a significant association between the selected demographic variables with the pre test level of anxiety among patients with breast cancer in experimental group.
- Conceptual frame work : Based on J.W.Kenny's' Open System Model.
- Research design : "Quasi experimental design"
E O1 X O2
C O3 O4
- Population : Breast cancer patients.
- Sampling technique : Non Probability convenience Sampling technique was used.
- Samples : Breast cancer patients attending G.V.N Hospital, Dr. G. Viswanathan Multi speciality Hospital undergoing treatment.
- Sample size : 60 samples.
- Setting : G.V.N Hospital and GEL Speciality Hospital, Trichy.

- Tool : Section I - It consisted of selected demographic variables
Section II - Hamilton Anxiety Rating Scale(HAM-A)
- Data collection : A quasi – experimental design was used in this study. The period of data collection was from 20.07.2015 to 10.09.2015. The data was collected from women diagnosed with breast cancer who were under treatment and attending chemotherapy ward, oncology ward, and radiation therapy unit. The time of data collection was from 9.00a.m to 5.00p.m.The researcher first met the clients with breast cancer, developed a good rapport. The need and purpose of the study was explained to them and oral consent was obtained from all the participants. Pre test anxiety level was assessed in experimental group and control group using Hamilton Anxiety scale (HAM-A). Nursing intervention Yoga (Relaxation therapy) was given only to experimental group. After a period of practising relaxation therapy regularly for a period of 3weeks (21 days), post test anxiety level was assessed using the same tools. In control group the post test anxiety level was assessed without intervention.
- Data analysis : The data was analysed and interpreted in terms of Descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (independent ‘t’ test, paired ‘t’ test, and chi-square)were used to test the research hypothesis.

MAJOR FINDINGS OF THE STUDY

1. The result of study show that the pre test level of anxiety was moderate and severe anxiety in both control group and experimental group
2. The findings show that the mean post test level of anxiety was significantly lesser than the mean pre test level of the anxiety among patients with breast cancer who received Yoga (Relaxation) therapy in experimental.
3. There was a significant decrease on mean post test level of anxiety among breast cancer patients in experimental group as compared to control group.
4. Significant association was found between selected demographic variables with pre test level of anxiety in control group.
5. Significant association was not found between selected demographic variables with pre test level of anxiety in experimental group.

CONCLUSION

The study brought out the following conclusions that anxiety is common among women diagnosed with breast cancer. Along with the routine treatments that is carried out yoga therapy can also be implemented, as Yoga(Relaxation) therapy is one of the safe and best measure to reduce the severe anxiety level. Yoga therapy is an complementary and alternative therapy that provides a broad holistic approach, help people to accept the reality and face life situation positively. Relaxation therapy helps to calm the mind, relax the body parts, improve blood circulation and strengthen the immune system .It is also found to have good healing effects.

CHAPTER I

INTRODUCTION

BACKGROUND OF THE STUDY

World Health Organisation stated that Cancer is a generic term for a large group of diseases that can affect any part of the body. Other terms used are malignant tumours and neoplasms. One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs. This process is referred to as metastasis. Metastasis is the major cause of death from cancer.

Brawley.et al. (2011) stated that cancer occurs mostly in people older than 65 yrs. Overall the incidence of cancer is higher in men than in women and found more in industrialised nations. Deaths are more common due to lung cancer, prostate and colorectal cancer in men, whereas in women due to breast cancer, colorectal cancer and lung cancer.

International Classification of Diseases for Oncology (2011) classified cancer based on tissue of origin as benign (non-cancerous) and malignant (cancerous). Other types include Carcinoma from epithelial tissue, Sarcoma from smooth and skeletal muscle, Myeloma from plasma cells, Lymphoma from lymphocytes and Leukaemia from blood cells.

Eggert. (2011) stated that cancer is a disease process that begins when cell is transformed by genetic mutations of the cellular DNA. Genetic mutations may result from either inherited mutation or acquired mutations that led to abnormal cell behavior. The cells begin to proliferate abnormally, invade surrounding tissues and gain access to lymph node, blood vessels, and other parts of body.

Union of International Cancer Control (2013) stated that approximately 50% of cancer in developing countries occurs in individuals less than 65 yrs of age. The common risk factors include Poor nutrition, tobacco use, physical inactivity, environmental factors alcohol and smoking. Early stage cancers are less lethal and more treatable than the late stage cancer.

Factors known to cause cancer or induce carcinogenesis include inherited mutational genes wherein 20% of world wide cancers are linked to viral and bacterial infections, physical agents like exposure to radiation, chronic irritation or inflammation, chemical agents like tobacco, smoking, workplace exposure to carcinogens like pesticides, formaldehyde, nickel and zinc ores, genetic or family history where approximately 5% to 10% cancers in first degree or second degree relatives, dietary factors that includes increased intake of fats, alcohol, smoked meats, red meats etc and disturbances in hormonal balance either endogenous or exogenous.

Lewis. (2014) stated that Breast cancer is the most common malignancy in Indian women next to cervical cancer. In India the incidence of breast cancer is 30 per 100,000 women. In urban areas 1 in 28 women had cancer at 40 to 50 yrs. Unfortunately 50% of cases are detected very late and 2/3rd of new cases are detected only in the advanced stages, where cancer are incurable, treatment is ineffective, and need only palliative care. Approximately one million people are diagnosed with cancer every year.

Ross and Wilson. (2014) explained that Breast are accessory glands supported by fatty and fibrous connective tissue. It is made up of lobes and ducts. Each breast has 15 to 20 lobes which in turn has smaller sections called lobules. The lobules end into tiny bulbs where milk is produced. The lobes, lobules and bulbs together are linked together by ducts. The breast cancer is mainly divided into two types based on the site of origin. Invasive and Non invasive Carcinoma. Invasive carcinoma is further divided into Ductal carcinoma and lobular carcinoma, in which most common is ductal carcinoma.

Breast cancer causes are generally unknown. The following risk factors includes Genetic risk factors, Inherited mutational changes in certain genes like BRCA1 and BRCA2. Family history of Breast cancer, especially among women with first degree relatives, personal history of breast cancer, white race women, women with dense breast tissue, women who attained early menarche (before 12yrs) of age and late menopause at the age of 55, nulliparity, women undergone hormone replacement therapy, Women who have exposed to radiation treatment to the chest area early in life and personal history of benign breast disease.

Signs and symptoms include a lump or thickening in breast or underarm, change in size or shape of the breast, dimple in skin of breast, nipple turned inward, bloody discharge from nipple, scaly red swollen breast, nipple or areola.

The diagnostic test performed to detect Breast cancer includes, History collection, physical examination, imaging studies which includes ultrasound scan, MRI, CT Scan, Biopsy, Mammogram, laboratory tests of blood, urine and body fluids, fine needle aspiration, sentinel lymph node biopsy, HER2/neutest, Hormone Receptor test, stage and grade of the tumours.

Edge. et al. (2010) stated that tumour staging and grading are based on TNM classification where staging determines size of tumour and grading the type of tissue involved..Treatment options and prognosis are based on tumour stage and grade.

The treatment for breast cancer depends mainly on the stage and grading of tumor .The various stages include stage 0, stage I, stageII, stageIII, stageIV. Staging and Grading is mainly based on the type of cell involved, tumor size, involvement of nodes and distant metastasis.The treatment for breast cancer includes a combination of surgery, radiation therapy, chemotherapy, hormonal therapy and targeted therapy based on the severity of the condition.The surgeries include Partial mastectomy, Modified Radical mastectomy and total mastectomy.

Gosselin. (2010) emphasised that approximately 60% of patients with cancer receive radiation therapy. It reduces tumour size and it is also given prophylactically to prevent spread of the primary cancer to distant areas. Teletherapy and brachytherapy are the two radiation therapies used. The lethal tumour dose will eradicate 95% of the tumour yet preserve normal tissue. The dose is delivered in fractions measured in Gray, is given for several weeks in daily doses. 95% of patients experience side effects which includes radiation dermatitis with erythema and flaking of skin. Re epithelialization occurs after treatments have been completed.

Levine. (2010) coded that the other management includes chemotherapy which involves use of antineoplastic drugs. These drugs destroy cancer cells by interfering with cellular functions, including replication and DNA repair. Extravasation and hypersensitivity reactions are the most adverse reaction that can occur. It sometimes have been associated with life threatening outcomes. The major side effects include alopecia, nausea and vomiting. Other therapies include biologic targeted therapy, gene therapy, biologic response modifiers therapy and cancer vaccines.

Lapka and Franson. (2010) cited that cancer vaccine mobilise the body's immune response to recognise and destroy cancer cells. Quadrivalent HPV recombinant vaccine (Gardasil) protect against HPV types. Sipuleucel-T is used for prostate cancer. This vaccine does not cure cancer but is associated with improved patient survival.

American Cancer Society has recommended screening guidelines for early detection of Breast cancer which includes Breast self-examination, clinical breast examination and mammography. Early detection helps the treatment to be more effective and saves life.

The National centre for Complementary and Alternative medicine (2012) defines complementary and alternative medicine as diverse medical and health care system, practices and products that are used in conjunction with

conventional medicine. Complementary and alternative medicine is used to manage symptoms related to early and advanced stage of cancer and its associated problems.

There are ways to manage pain caused by cancer through drugs or Interventional Pain Management. But pain management is not the only thing to be taken care of. The diagnosis of Cancer and its treatment can often cause psychological turmoil, social stigma, occupational, legal concerns, spiritual and religious issues. These concerns should also be addressed to ensure the wellbeing of patients and families where palliative care is required.

World Health Organisation describes palliative care as an approach that improves quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention of suffering by early identification, impeccable assessment and treatment of pain and other problems, physical, psychological and spiritual.

The Indian Association of Palliative Care (2010) stated that Pain and palliative care management has gained a widespread acclaim worldwide due to its benefits. The central body for palliative care in India, is offering courses to educate health service providers in palliative therapy. Palliative care experts aspire to provide “total pain relief” not only on physical discomfort but also on “psychosocial-spiritual pain”. Patients under palliative care enjoy a better quality of life during and after treatment along with techniques like yoga, meditation, emotional counseling, family meetings, and spiritual guidance. This in turn leads to improved survival and offers an improved quality of life when cancer becomes incurable.

National Cancer Institute (2010) stated that patients living with cancer feel many difficult emotions including anxiety and distress. It may affect a patient’s ability to cope with cancer diagnosis or treatment. Anxiety occurs to varying degree in patients with cancer and may heighten as the disease progresses or as treatment becomes more aggressive. Investigators have found

that patients with cancer report significant anxiety from the time of diagnosis. In patient with advanced diseases, anxiety is often not caused by the fear of death but by the issues of uncontrolled pain, isolation, abandonment and dependency.

National Cancer Institute (2010) stated that Anxiety is a painful or apprehensive uneasiness of mind usually over an impending or anticipated illness. Fear is response to real threat but anxiety is the expectation of future threat. Anxiety is often manifested in individuals at a various times during cancer screening, diagnosis, treatment or recurrence. It can sometimes affect a person's behaviour regarding his or her health, contributing to a delay in or neglect of measures that might prevent cancer. Anxiety regardless of its degree can substantially interfere with Quality of life of patients with cancer and their families, so it should be evaluated and treated.

Current research shows promising benefits of yoga for people with cancer in managing symptoms such as fatigue, pain, insomnia, mood, stress and improvement in quality of life. Yoga is derived from Sanskrit root "yuj" meaning to bind, join and yoke. This reflection of the union of the body, mind and spirit is what differentiates yoga from general exercise programmes. Yoga consists of asana (postures) which are designed to exercise every muscle, nerve, and gland in the body. Postures are also combined with pranayama (rhythmic control of breath). As complementary therapy yoga integrates awareness of breath, relaxation, exercise and social support elements that are key to enhance quality of life in patients with cancer.

Positive effects were reported in a variety of outcomes including sleep quality, mood, stress, cancer related distress and symptoms, Quality of life, as well as functional, physiologic and psychological benefits to patients with cancer.

Rachael Light Bird. (2010) emphasized that Primary emphasis of yoga is on general wellbeing. Yoga is not considered a therapy for specific disease. Rather yoga employs broad holistic approach that focuses on teaching people a newer lifestyle and way of thinking. It is also found to have healing effects. Yoga, meditation, deep breathing practices had shown to calm the mind, relax the body and strengthen the immune system .There are various types of yoga with postures and asana. Considering the need, importance and physical capability of the patients with cancer breast, the most effective one to reduce their anxiety is relaxation exercise.

Relaxation Exercise mainly includes relaxing the whole ten parts of the body from foot to head by auto suggestion. Lie down in an upright position and by closing the eyes think in your mind and start relaxing the whole body from foot to head by auto suggestion. Think of your foot and start relaxing, relax the calf muscle, relax the knees, relax the thighs, Relax abdomen, stomach, chest, shoulder and arms, neck, head and face are relaxed. Each part takes one to two minutes. This exercise takes for nearly 20 mts. The whole body is completely relaxed. If you feel sleepy you may sleep for few minutes. Once the whole body is completely relaxed. Think only of the breath going in and out “Lie in that position for 10 minutes”. Before getting of just move the hands, feet and turn towards the left side to wake up.

The benefits are such as regulation of the circulation of blood, heat, air, life force, and bio magnetism throughout the body. It rejuvenates the body, and provides complete relaxation of the whole body and mind, brings calmness thereby preventing insomnia, reduces mood disorders and promotes good sleep. It also acts as a powerful and enjoyable antidote for anxiety, gaining entry into the pleasurable realm and reduces the level of anxiety to a great extent.

NEED FOR THE STUDY

International Cancer Control (2013) stated that Cancer now accounts for more deaths worldwide than HIV ,Tuberculosis where 7.6 million global deaths occurred from cancer in 2010,more than 55% occurred in less developed regions of the world. By 2030, 60 -70% of the estimated 21.4 million new cancer cases per year are predicted to occur in developing countries.

Lewis. (2011) emphasized that Cancer is undoubtedly a serious and potentially life threatening illness. Cancer is one of the second largest killers next to heart diseases. Globally cancers account for 5.1% of total disease burden and 12.5% of all deaths. With increasing prevalence of alcohol and tobacco consumption it is estimated that 10 lakh new cases will be diagnosed in 2016, up from about 8 lakhs in 2001. Nearly 6, 70,000 people are expected to die due to cancer in India in 2016.

Union of International Cancer control (2013) emphasized that approximately 47% of cancer cases and 55 % of cancer deaths occur in less developed regions of the world. By 2030, if the current trend continues, cancer cases will increase by 81% in developing countries.

In countries with organised breast screening programs, the reduction in mortality from cancer breast is highly significant. The mammographic screening programme established in 1991, was able to achieve almost 30% reduction in mortality from Breast Cancer over the last two decades.

In India, the average age of developing a breast cancer has undergone a significant shift over last few decades. Breast cancer accounts for 25 to 35% of all female cancers in India. This implies that one third of all female cancers are breast cancer cases.

National Cancer Institute estimated that 2, 32,670 (14.6%) new cases and death rate 40,000 in 2014. According to the statistical from the Madras Metropolitan Tumour Registry at Adyar Cancer Institute Hospital indicate that the incidence of breast cancer was 19.1/1, 00,000 in 1982-1989 and 35.8/1, 00,000 population in 2009-2010.

Tamilnadu health systems project conducted screening test for Non-communicable diseases in various areas in and around Tamilnadu where 4,413 cases were affected with cancer breast from 2012 - 2014.

According to onco club survey 500 cases of cancer breast were found in Trichy and Tanjavur district in 2012 – 2014.

The fear of cancer without doubt has been aggravated but all necessary effort are taken to overcome it. It is natural to feel depressed, sad, anxious when one is diagnosed with cancer as we all feel that we have some control over our health and our future, but the disease cancer can remove our certainty, limit our plans for the future and inspire fear, anxiety within us and a great turmoil to the family as a whole. To overcome such agonies educational campaigns have aimed at leading the public to recognise symptoms and to seek diagnosis early enough so that the treatment will be effective. Most breast cancer patients have experimented with integrative therapies to manage symptoms and improve quality of life. Meditation, yoga and relaxation therapy were found to have the strongest evidence of supporting their use, especially in managing symptoms such as anxiety, depression, insomnia, pain and fatigue in any type of cancer patients.

As a complementary therapy, yoga integrates awareness of breath, body relaxation, exercise and social support elements that are key to enhance quality of life in patients with cancer and with a positive outlook.

Heather, G. (2013) stated that most breast cancer patients have been experimented with integrative therapies to manage symptoms and improve quality of life. Meditation, yoga and relaxation were found to have strongest evidence supporting their use. Research on complementary therapies for breast cancer patients gives an A grade and are recommended for routine use of complementary therapies for anxiety and other mood disorders common to breast cancer patients.

Balaskas. (2013) stated that the practise of yoga enables people to look within the self and understand bodily mechanism and helps them to cope with the problem when they confront the actual situation

Yoga is a way of life that includes ethical models for behaviour, mental and physical exercise aimed at producing spiritual enlightenment. It is simple, effective and heartfelt system that helps relieve pain and suffering for clients while also reducing exhaustion, stress and burnout for caregivers. Yoga is internationally accepted by 173 countries worldwide, and hence knowing its importance World Yoga Day is celebrated on June 21.

During the investigator clinical experience in Oncological ward, the researcher found that among different types of cancer the majority of the cases diagnosed were breast cancer, who were undergoing various types of treatment regimen and in various stages of the disease. Many cases reported recurrence of the disease and with metastasis. The quality of life of them were poor, looks very anxious, depressed and with low self-esteem. From earlier days Yoga traditionally is believed to have beneficial effects on physical and psychological health. The reflection of the union of the body, mind and spirit is what differentiates yoga from general exercise programs. Nowadays yoga is being incorporated into cancer programs and national symptom management to enhance their quality of life by promoting physical and psychological health.

Hence this motivated the investigator to conduct a study based on teaching Yoga (relaxation) therapy to clients with Breast cancer and promote a sense of wellbeing by using this complementary therapy. The purpose of this study was to assess the effectiveness of Yoga on anxiety among patients with breast cancer and promote a sense of wellbeing by using the complementary therapy.

STATEMENT OF THE PROBLEM

A Quasi experimental study to assess the effectiveness of yoga on anxiety among patients with breast cancer at selected Hospitals, Trichy 2015 - 2016.

OBJECTIVES

1. To assess the pre test level of anxiety among patients with breast cancer in control group and experimental group.
2. To assess the effectiveness of yoga therapy on the level of anxiety among patients with breast cancer in experimental group.
3. To compare the mean post test level of anxiety among patients with breast cancer in control group and experimental group.
4. To determine the association between the selected demographic variables with the pre test level of anxiety among breast cancer patient in control group
5. To determine the association between the selected demographic variables with the pre test level of anxiety among breast cancer patient in experimental group.

HYPOTHESIS

- H₁ : There will be a significant difference in anxiety among patients with breast cancer after yoga in experimental group
- H₂ : There will be a significant difference in post test level of anxiety among patients with breast cancer in control and experimental group.
- H₃ : There will be a significant association between the selected demographic variables with the pretest level of anxiety among patients with breast cancer in control group.
- H₄ : There will be a significant association between the selected demographic variables with the pre test level of anxiety among patients with breast cancer in experimental group.

OPERATIONAL DEFINITION

ASSESS

It is defined as to evaluate or estimate the nature.

In this study it refers to the evaluation of reduction on anxiety among breast cancer patients by practicing yoga (Relaxation) therapy.

EFFECTIVENESS

It is defined as a result produced by agent's actions or force.

In this study it refers to the way by which yoga (Relaxation) therapy will produce positive result in reducing anxiety level of patient with breast cancer as measured by Hamilton Anxiety Rating Scale (HAM-A).

YOGA

It is a procedure of a relaxation posture intended to rejuvenate body, mind and spirit.

In this study it refers to the use of relaxation therapy where they lie down and relax the whole body from foot to head and from head to foot by auto suggestion and feel only the breathe for few minutes. This rejuvenates body, mind and spirit thereby reducing anxiety and exacerbation of stress level among patients with breast cancer. Yoga (Relaxation) therapy will reduce the anxiety level among patients with breast cancer.

ANXIETY

It is reducing the vague diffuse apprehension that is associated with feelings of uncertainty and helplessness.

In this study it refers to reducing the feelings of fearfulness and promotes a sense of wellness among breast cancer patients by practicing yoga (Relaxation) therapy.

BREAST CANCER

It is the rapid proliferation of abnormal cells that grow beyond boundaries in the breast or mammary glands invade the nearby tissue and lymphatic system of the breast.

In this study it refers to the patients who were diagnosed with breast cancer.

ASSUMPTIONS

1. Yoga (Relaxation) therapy will reduce the anxiety level of patients with breast cancer.
2. Regular practice of yoga (Relaxation) therapy will improve the quality of life among patients with breast cancer.
3. Nurses play a significant role in reducing the anxiety level of patients with breast cancer.

DELIMITATIONS

The study is delimited to

1. Only patients with breast cancer
2. 60 Samples only
3. Female patients only
4. Period of data collection will be 8 weeks
5. The assessment of anxiety was done only with Hamilton Anxiety scale.(HAM-A).

CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

A review of literature refers to the activities involved in identifying and searching for information on a topic and developing and understanding the state of knowledge on the topic.

(Polit and Hungler, 2004)

The present chapter discusses about the studies linked with anxiety and the effect of yoga therapy on reduction of anxiety level. The case studies mentioned below are found to be an evidence on how Yoga (Relaxation) therapy is used as an effective therapy in minimising the anxiety level among patients with Breast cancer.

The investigator carried out an extensive review on literatures on the research topic, in order to collect maximum relevant information. The main aim of this systematic review is to summarise the best available information's which helps the researcher in providing adequate knowledge and better practices followed regarding the management of anxiety , and the effectiveness of Yoga(Relaxation) therapy on the reduction of anxiety level.

In this present study the investigator has reviewed and organized under the following headings

- A. Literature related to anxiety in Breast cancer patients

- B. Literature related to effect of Yoga (Relaxation) therapy on anxiety in Breast cancer patients

LITERATURE RELATED TO ANXIETY IN BREAST CANCER PATIENTS

Laird. et al. (2015) conducted a study to assess the prevalence of anxiety, depression and pain in newly diagnosed breast cancer patients. 60 females from National Cancer Institute with newly diagnosed Breast cancer, who had not yet started the treatment were selected. State Trait Anxiety Inventory, Centre for Epidemiological studies 10-Depression Scale, McGill Questionnaire were used to assess the level of anxiety, depression and pain. The results showed that 78% had anxiety and 48% had depression and suggest that both anxiety and depression are common among Breast cancer patients, but in addition experience an appreciable amount of pain even before starting the treatment might be due to primary tumor burden, biopsy and metastatic disease.

Marianna, K. et al. (2014) stated that they predicted and examined the initial levels of anxiety in women before and 6 months after Breast cancer surgery. 396 patients were enrolled preoperatively and anxiety level was measured using Spielberg State Anxiety Inventory monthly for 6 months. Using linear modelling all characteristics was evaluated. The results showed that patients showed moderate to severe levels of anxiety pre operatively which further lead to higher levels of depressive symptoms, poorer physical health, greater difficult in coping, feelings of isolation with higher anxiety scores over time.

Dizon, D. (2014) emphasised that where one in three with cancer has anxiety or other mental health challenges. Large samples of 2,141 patients from outpatient clinic, Rehabilitative centres from Germany Oncological centre were interviewed face to face with standardised questionnaire. The minimum period after diagnosis of cancer was 13 months. The psychological symptoms were assessed by the Mental Health professionals by Diagnostics and statistics Manual of Mental Disorders. The results showed 32% had either one mental problem and 18% had severe mental disorders. In that 28% had anxiety

symptoms like phobia, and generalised anxiety and 12% with depressive symptoms. Overall higher prevalence of anxiety was found in Breast cancer patients of 44%, 15% in prostate, 14% in colorectal, and remaining 27% in others.

Liyuan, L. et al. (2014) carried out a study to assess the depression and anxiety among Breast cancer survivors. 222 individuals were selected from National Epidemiological Survey. Depression scale and State Trait Anxiety Inventory were used to assess the depression and anxiety level. Rosenberg self-esteem, Simplified coping style Questionnaire were used to measure the self-esteem and coping style. The result showed that Breast cancer survivors experience high level of depressive and anxious symptoms. It is highly associated with passive coping style and decreased social support.

Ozan, E. et al. (2014) performed a study to examine the association between complementary and alternative medicine (CAM) with the quality of life, anxiety, depression of women with the breast cancer. Quality of Life was measured by the European Organisation for treatment and Research of cancer Quality of life core questionnaire (EORTC), anxiety and depression measured by the Hospital Anxiety and Depression Scale. 122 patients with breast cancer were enrolled in the study and Complementary and alternative Methods taught were stinging nettle, prayer and spiritual healing. The results suggested that the use of (CAM) was quite popular and more common in breast cancer patients, but they showed no association between Complementary and alternative Method (CAM) usage and anxiety, depression.

Suzanne, S. D., Homish, G. G., Robin, M. L., and Alquassi, N.M. (2013) stated and proved that fear and anxiety was prevalent among Jordanian women perceptions of the Diagnosis and surgical treatment of Early stage Breast cancer. 28 Jordanian women who were surgically treated for early stage Breast cancer within 6 months was recruited using purposive sampling technique. Datas were collected using individual interviews and datas were analysed using

Heideggerian Hermeneutical Methodology. Results showed that fear and anxiety had a profound effect on Jordanian women perceptions of the diagnosis, surgical treatment and they lost perspective of the fact that this disease was treatable and potentially curable.

Robin, M.L., Jennifer, A. H., Kathleen, S., and Heather, H. (2012) proved that psychological adjustment to Breast cancer diagnosis is not achieved even after many years. Samples of 26 women of age 39 to 81 years old with Breast cancer at stage 0 - stage II prior to surgery or 30 days after surgery was selected. Semi structured interview was conducted. The concept of scope and the modified grounded theory of adjustment was defined and explained during the pre treatment period. The findings showed and proved that explanation of modified grounded theory enhanced psycho education but did not make a difference in psychological adjustment during the treatment period.

Chi, C. L., Emily, N. K., and Kamala, D. (2012) conducted a quantitative study on anxiety in patients with Breast cancer undergoing treatment. 21 patients of age less than 65 years with stage 0 to stage III who were undergoing and who had already undergone combined treatment without any other medical morbidity were selected. The anxiety level was assessed by State Trait Anxiety Inventory. The study showed that the intensity of anxiety was pronounced among all the 3 treatments (surgery, chemotherapy, radiation therapy), but chemotherapy has shown associated with higher anxiety level than the other two treatments.

Ling, T.P., Chi, W., Shan, L.H., and Long, L.S. (2011) conducted a correlational study to identify factors that influenced the degree of death anxiety among Taiwanese cancer patients. 219 cancer patients were selected. Quality of life Scale, Death Anxiety Scale was used to assess the quality of life, death anxiety level. The result proved that sense of purpose in life, fear of disease relapse; sexuality problems were significant predictors that had great effects on the level of death anxiety among cancer patients.

Fafouti. et al. (2011), conducted a comparative study on depression, anxiety, general psychopathology of Greek women with Breast cancer and with a group of healthy people as a control group. Totally 109 samples from breast cancer oncology department were selected where healthy controls of n=71 were from breast outpatient clinic. General Psychopathology was assessed by Symptom check List (SCL-90-R), depression was assessed by Montgomery-Asberg Depression scale and anxiety assessed by Speilberg State Trait Anxiety. The study showed that anxiety, depression and overall psychopathology are more frequent in breast cancer patients when compared to healthy controls. Hence breast cancer patients are closely followed up and treated if any mental health problems arise.

LITERATURE RELATED TO EFFECT OF YOGA ON ANXIETY IN BREAST CANCER PATIENTS

Caroline, E. et al. (2015), proposed a study on mindfulness based stress reduction for self management of fatigue, anxiety and depression in women with breast Cancer. Initially Questionnaire were given and by qualitative interview method the pre test was conducted. This was followed by 8 weeks of mindfulness based stress reduction course. Out of 100 approached only, 20 women with breast cancer took part in the entire course with commitment, high attendance, regular home practise, excellent follow up. The post test was conducted on 16th week and result showed high improvement rates in their level of reduction in fatigue, anxiety and depression. Mindfulness based stress reduction was acceptable by the participants as it had ongoing benefits such as improved quality of of life by feeling less reactive to emotional distress.

Charalambous, A. et al. (2015) conducted a study on the effectiveness of progressive muscle relaxation as anxiety reducing intervention in breast cancer patients undergoing chemotherapy. Total 208 patients were selected, where 104 in control group and 104 in experimental group. Beck 11 Anxiety Questionnaire was used to assess the level of anxiety. Pre test anxiety level was

assessed and Progressive muscle relaxation (PMR) was taught only to the experimental group. The post test anxiety level was assessed after 3 week duration. The results concluded that the anxiety mean score of experimental group had significant difference when compared to the control group. Hence the findings proved that the PMR intervention was effective as it reduced the anxiety level of patients with breast cancer undergoing chemotherapy.

Buchrieser, T. (2015) conducted a quantitative study to assess the effectiveness of massage therapy for decreasing pain, distress and anxiety in breast cancer patients. 68 samples of breast cancer patients with any duration of illness and any frequencies of treatment were selected randomly. Visual Analogue Pain Scale to assess the pain intensity, Symptom Distress Scale to assess the distress level, State Trait Anxiety Inventory was used to measure anxiety level, were used. They received various types of massages like Swedish massage, foot massage, hand massage and whole body massage for 30 minutes, 2 times a week for a period of 8 weeks. The study results showed that the use of massage therapy improved symptoms of pain and anxiety in breast cancer patients.

Rebecca, C.O. et al. (2015) proposed a study to examine the breast cancer participant perceptions of the effects of a Mindful Movement Programme on quality of life, stress and anxiety, management of pain. Samples selected were women of age above 50 who had treatment for more than one year for breast cancer. Consent were obtained and selected participants were given self administered questionnaire. Followed with that 2 hour mindful movement sessions was held for 8 to 9 weeks. Groups were made among with the participants who attended on average of 10 classes. Focus group interviews were recorded and analysed using qualitative techniques. Their feedback indicated that the intervention yielded positive results, offered a feasible and acceptable strategy for improved quality of life and decreased stress, anxiety among the participants.

Bower. et al.(2015) carried out a study to assess the effect of mindfulness based intervention for younger breast cancer survivors .Women of age less than 50 were randomly selected and a 6 week Mindful Awareness practices were given only to experimental group of n=39 and no intervention to n=32 in control group. Hospital Anxiety and depression scale was used. Participants completed questionnaire before and after intervention to assess stress, anxiety and depressive symptoms. The study results show that the intervention led to significant reduction in stress, anxiety, behavioural symptoms and inflammatory activity in breast cancer survivors in experimental group.

Andersen. et al. (2015) conducted a randomised control study to evaluate the effect of mindfulness based stress reduction on anxiety, somatic symptoms and spiritual well being in women with breast cancer. Population sample of 336 Danish women with breast cancer were given 8 weeks of mindfulness stress reduction programme. Effect of the programmes was evaluated post intervention, after 6 months and 12 months. The result shows that Mindfulness based stress reduction has reduced the levels of distress, anxiety, depression and spiritual well being in women with breast cancer.

Cohen, L. (2014) emphasized that how yoga can help breast cancer patients undergoing radiation therapy. 163 women of varying stages of breast cancer stage 0- stage III who were undergoing radiation for a period of six weeks were randomly assigned to 3 groups. First group were taught yoga relaxation exercise, second group were taught stretching exercises and third group no yoga or stretching exercises.They assigned the activity for 1 hour 3 times a week. Researchers collected samples of saliva, level of cortisol and ECHO was done at the beginning of study and at the end of radiation treatment during 1st, 3rd and 6th months after radiation treatment to analyse the fatigue, anxiety, sleep and quality of life. The result showed that greater improvements to physical and general health with reduced cortisol level were found in people who underwent yoga than the other two groups.

Janice, G.K. (2014) proved that how several months of Hatha yoga practise can benefit breast cancer survivors by reducing, fatigue, anxiety and depression. 200 women who had undergone treatment for breast cancer of stage 0 - stage III are randomly assigned to experimental and control group. Questionnaire were given to assess the level of fatigue, anxiety, depression and investigations to identify inflammatory protein (Interleukin) was done at the beginning of the session, at the end of 12 week session of hatha yoga practise, and after 3 months. The intervention was given twice weekly for 90 minute for a period of 12 weeks in groups. The study shows that the participants had a better quality of life with reduced fatigue, anxiety and depression.

Lora, K .B. (2013) performed a comparative study on does yoga aid in reduction of short term anxiety in Adult breast cancer patients undergoing adjuvant chemotherapy. 62 samples of n=28 in experimental group and n=34 in control group were selected. Before starting chemotherapy yoga classes were taught by yoga instructor for 60 minutes and were practised at home by providing CD on relaxation therapy. After chemotherapy 30 minute of relaxation was also taught and practised only by experimental group. Control group had only a 30 minute class on symptoms related care and health education. The result showed that yoga was very effective treatment in reduction of anxiety among patients with breast cancer and implementation of yoga into lives of cancer patients will further reduce stress and chemotherapy related symptoms.

Cramer, H., Lange, S., Klose, P., Paul, A., and Dobos, G. (2012) stressed that use of yoga to cope with their disease on physical health (functional, social, spiritual) and psychological health (anxiety, depression, stress) related Quality of life in breast cancer patients and survivors. Randomised controlled trials were done while assessing health related quality of life and psychological health. Risk of bias was assessed by Cochrane risk of bias tool. Standardised mean differences and 95% confidence intervals were calculated. Evidence revealed that short term benefits were found on both physical and psychological health after practising yoga.

Eduardo, C. T., Cesar, A. F., Castellar, J.J. (2011) stated that beneficial effects of Pranic Meditation on the Mental Health and Quality of life among Breast cancer survivors. 75 women with breast cancer receiving therapy or post therapy who agreed to practice pranic meditation for 8 weeks after receiving formal training were selected. Quality of life was assessed by European Organisation Research and Treatment centre Quality of Life questionnaire (EORTC). Mental status was assessed by Goldberg's General health Questionnaire. Results showed significant benefits related to mental health and quality of life was found after practising a short period of pranic meditation.

CONCLUSION

The above mentioned studies explain and prove the need and importance of administering Yoga as an alternative and complementary therapy to reduce the anxiety level among patients with breast cancer. It also proves that yoga has more health benefits and is very effective to overcome the psychological turmoil that occurs when diagnosed with breast cancer. It is also stressed that further studies can be conducted on various types of yoga therapy and to create awareness among the breast cancer patients. Yoga practices can provide a good impact on the overall health and well being, there by facing the challenges with positive attitude, and improving the Quality of life. Thus the researcher concluded that administering Yoga (Relaxation) therapy was an effective method that can be implemented among patients with breast cancer.

CONCEPTUAL FRAME WORK

Conceptual framework for the study was developed from the existing theory and it helps in defining the concepts of interest and proposing relationship among them. Conceptual models are useful in research process in clarifying concepts and their associations, in enabling researchers to place a specific problem into appropriate context. The value of the model of nursing creates awareness and provides direction for nursing practice, nursing education and nursing research which is evident in the literature. The models act as vehicles to professional accountability.

Conceptual frame work serves as a guide or a map for systematically identifying a logical, precisely defined relationship between variables

(Polit and Hungler 1991).

This study was based on J.W. Kenny's open system model (1999). A system is defined as a whole with inter related parts, in which each parts have a function and the system as a totality has a function. Open systems have varying degrees of interactions with environment from which they receive input in the form of matter, energy, information. J.W.Kenny's Open system model views people as interacting with the environment and there is a continual exchange of matter, energy, information.

The interacting element may not serve a different function, but they all serve a common purpose to contribute to the overall goal of the system. The main four concepts of this model are

1. Input
2. Throughput
3. Output
4. Feedback

1. Input:

Input is any form of energy, information, material or human that enters into the system through its boundaries. The process of selecting the system regulates the type and amount of input received.

In this study, the input consists of pre-test level of anxiety among patients with breast cancer.

2. Throughput:

It is the process that occurs between the input and output, which enables the input to be transformed as output in such a way that can be readily used by the system.

The throughput in this study is the relaxation therapy taught and practised for 20 – 30 minutes to patients with breast cancer.

3. Output:

It is any energy, information or material that is transferred, to the environment after processing the input. The systems output to the environment is an altered response.

In this study the output is the improvement of the patient condition like reduced anxiety level among patients with Breast Cancer after yoga (Relaxation) therapy as measured in the post test.

4. Feedback:

It refers to environmental responses to the systems output in adjustment and correction.

In this study, the post test reveals the effectiveness of Yoga (relaxation) therapy in reducing the level of anxiety among patients with Breast cancer.

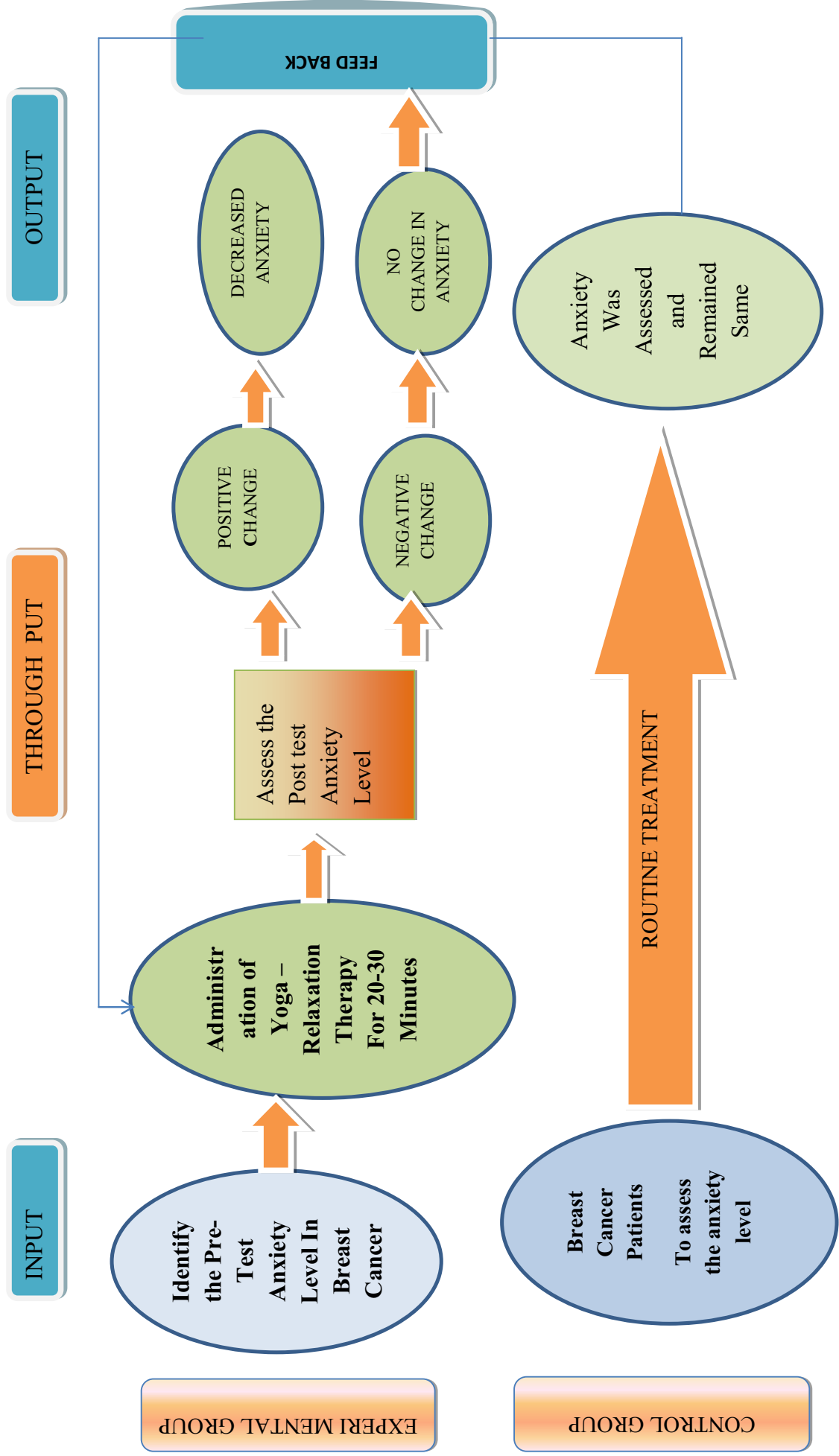


Figure: 1 Conceptual framework based on J.W. KENNY'S open system model (1999)

CHAPTER III

RESEARCH METHODOLOGY

Methodology of research refers to the investigations of the ways of obtaining, organizing and analysing data. Methodology studies address the development, validation and evaluation research tools or methods.

Polit and Beck (2008)

The research methodology includes the research approach, research design, setting of the study, population, sample, sample size, sampling technique, criteria for sample selection, development of research tools and technique, validity, reliability of the tool, pilot study, data collection procedure, plan for data analysis and production of human subject.

RESEARCH APPROACH

The research approach used for this study was evaluative approach.

RESEARCH DESIGN

The research design used for this study will be Quasi experimental non equivalent control group pre-test post-test design.

E 01 X 02

C 03 04

E – Experimental group

01- Pre test assessment of anxiety in experimental group

X – Intervention of yoga (relaxation) therapy for 20-30 minutes

02 – Post test assessment of anxiety in experimental group.

C - Control group

03 – Pre test assessment of anxiety in control group

04 - Post test assessment of anxiety in control group

SETTING OF THE STUDY

The study was conducted in G.V.N Hospital, which was located in Singarathope at Trichy, nearly 8 Km away from Dr.G.Sakunthala College of Nursing. It is a 300 bedded hospital which is a branch of G.V.N Institute of Medical Sciences. This hospital is providing care for all types of cases like general medicine, general surgery, orthopaedic medical and surgical cases, oncology medical and surgical cases. This hospital is specialised mainly for oncological treatment. It consists of oncological outpatient department where nearly 40 to 60 patients per day come to consult the Medical and Surgical Oncologist. Nearly 30 to 40 patients are admitted in oncological ward with all types of cancers. Average of 50 to 60 patients attend the radiation therapy unit in a day to receive radiation. Among this nearly 10 to 15 patients are with breast cancer. In chemotherapy unit nearly 10 to 15 patients receive chemotherapy per day, where nearly 3 to 4 patients are with breast cancer. The reason for selecting this hospital was the availability of samples, feasibility for the study and co-operation from the medical and nursing staff. The experimental group data collection was conducted in this hospital and samples were selected from oncological ward, radiation therapy unit and chemotherapy unit. Who are under treatment with chemotherapy, radiation therapy and others.

Dr. G.Viswanathan Multi Speciality Hospital was located in Singarathope, Babu Road at Trichy. It is 10 Kms away from Dr.G. Sakunthala College of Nursing. It is a multi speciality 100 bedded hospital. The hospital provides care to all medical and surgical cases, oncological cases, medical emergencies and casualties. Nearly 20 to 30 patients attend radiation therapy unit each day and 5 to 10 patients attend chemotherapy unit per day. Among this 4 to 5 patients are with breast cancer. This hospital was selected due to availability of samples, feasibility for the study and co-operation from medical staffs. The control group data collection was conducted in this hospital. The samples selected were patients who are under treatment in radiation therapy, chemotherapy and those admitted in inpatient wards.

POPULATION

The target population of this study was female breast cancer patients.

SAMPLE

The samples consisted of 60 female patients with breast cancer who are under treatment with chemotherapy, radiation therapy from selected hospitals in G.V.N Hospital, Dr. G.Viswanathan Multi Speciality Hospital,Trichy.

SAMPLE SIZE

The sample size of this study was 60 female patients with breast cancer

Experimental group -30 patients

Control group - 30 patients

SAMPLING TECHNIQUE

The sampling technique used for this study was non probability convenience sampling.

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

1. Patients diagnosed with cancer breast
2. Patients who are under treatment
3. Those who were willing to participate in study
4. Those who were available at the time of study
5. Only females are included

EXCLUSION CRITERIA

1. Patients with other type of cancers
2. People unwilling to participate in the study
3. Male patients
4. Patient with any deformities that restrict physical activities
5. Patient with stage IV and metastasis
6. Patients who practice other type of yoga

RESEARCH TECHNIQUE

In this study the self Administered Hamilton Anxiety Scale(HAM-A) was used.

DESCRIPTION OF THE TOOL

In the present study, the instrument used consisted of the following section.

Section 1 – It consisted of selected demographic variables.

Section II – It consists of self administered Hamilton Anxiety Scale (HAM –A)

SCORING PROCEDURE

The Hamilton Anxiety scale (HAM–A) was developed in 1959.Each item was scored on a scale of 0 (not present) to 4 (very severe) with a total score range of 0 - 56.The score was ranged as follows

0 – 13 - normal

14 - 17 - mild anxiety

18 - 24 - moderate anxiety

25 and over - severe anxiety

TESTING OF THE TOOL

VALIDITY

The tool was evaluated by 5 experts who were requested to give their valuable suggestion about the content area, relevancy, clarity and appropriate need of items. Minor modifications were done according to their suggestions.

RELIABILITY

The reliability of the tool was established by assessing the quality of tool by using Split half method. The reliability was $r = 0.9$ and hence the tool was highly reliable.

PILOT STUDY

After obtaining formal approval, the pilot study was conducted with 5 samples as experimental group from G.V.N Hospital, Trichy and 5 samples as the control group from Dr. G.Viswanathan Multi Speciality Hospital Trichy. The period of data collection was from 15.06.2015 to 15.07.2015. Pre test was given with the standard self administered Hamilton Anxiety Scale (HAMA) questionnaire to both the groups. Intervention Yoga (relaxation) therapy was given only to experimental group. Post test was given to both experimental and control group. The pre test and post test scores was analysed using split half method. There was no modification done in the study. The pilot study samples were excluded from the main study.

DATA COLLECTION PROCEDURE

The period of data collection was from 20.07.2015 to 10.09.2015. Before starting the study the investigator obtained formal permission from the Principal, Head of the Department of Medical surgical Nursing and research committee members of Dr.G.Sakunthala College of Nursing, G.V.N hospital, Dr. G.Viswanathan Multi Speciality Hospital. Prior to data collection the investigator obtained formal permission from the Doctor Incharge to conduct

the study. After obtaining permission, 60 samples with breast cancer were selected with non probability convenience sampling from oncology ward, radiation therapy and chemotherapy unit. A Quasi experimental pre test post test control group design was used. The timing of data collection was from 9.00am to 5.00 pm. The researcher identifies the sample depending on the availability and based on inclusion criteria. The researcher first met the patient, rapport was developed and the researcher obtained oral consent from all the participants. The nature and purpose of the study was explained to the participants. Pre test was given to 30 samples in experimental group and control group with Hamilton Anxiety Scale (HAM-A). The intervention yoga (relaxation) therapy of 20-30 minutes was given twice weekly for a period of 3 weeks only to experimental group. They have to attend 2 classes per week, a total of 6 sessions in 3 weeks to have a regular and continuous practice for 21 days. After the session they are provided with a compact disc to practice at home. Confirmation of the Participants who practise relaxation therapy at their home was confirmed and checked by ringing up to their primary care takers who takes care of them. No intervention was given to control group. After a period of 21 days post test was given with the same tools to both experimental group and control group. After post test the investigator taught the yoga (relaxation) therapy to control group. Yoga (Relaxation) therapy reduced the anxiety level among patients with breast cancer.

PLAN FOR DATA ANALYSIS

All the analysis was done by using SPSS 20th version. The collected data was tabulated to represent the findings of the study. Both descriptive and inferential statistics was used to analyse the data findings

Frequency and percentage distribution was used to analyse the demographic variables. Mean, standard deviation and Paired 't' test was used to evaluate the effectiveness of Yoga (Relaxation) therapy. Independent 't' test was used to find out the difference between post test mean score of the control and experimental group. Chi-square test (χ^2) was used to determine the association between selected demographic variables with the pre test level of anxiety in control group and experimental group.

ETHICAL CONSIDERATION

The research approval was approved by the ethical committee members of the institution prior to the pilot study. Permission was obtained from Principal, Head of the Department in Medical Surgical Nursing, and the investigator obtained formal permission from the administrative department of respective hospitals to conduct the study. The purpose of study was explained and assurance was given to the subject that confidentiality of each individual would be maintained. Informed consent was orally obtained from the patients and they were informed that they are free to withdraw from the study at any time.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the description of the sample, analysis and interpretation of data to assess the effectiveness of Yoga (Relaxation) therapy on anxiety among breast cancer patients. The obtained data have been classified, grouped and analysed using descriptive and inferential statistics based on the objectives of the study.

OBJECTIVES OF THE STUDY

1. To assess the pre test level of anxiety among patients with breast cancer in control group and experimental group
2. To assess the effectiveness of yoga on the level of anxiety among patients with breast cancer in experimental group
3. To compare the mean post test level of anxiety among patients with breast cancer in control group and experimental group.
4. To find out the association between the selected demographic variables with the pre test anxiety among breast cancer patients in control group.
5. To find out the association between the selected demographic variables with the pre test anxiety among breast cancer patients in experimental group.

ORGANIZATION OF FINDINGS

The analysis of data has been organised and presented under the following headings

- SECTION I : Frequency and percentage distribution of samples according to demographic variables
- SECTION II : Percentage distribution of level of anxiety among breast cancer patients in control group and experimental group.
- SECTION III : Comparison of mean scores between pre test and post test level of anxiety in control group and experimental group
- SECTION IV : Comparison of mean post test level of anxiety in control group and experimental group
- SECTION V : Association between selected demographic variables with pre test level of anxiety in control group.
- SECTION VI : Association between selected demographic variables with pre test level of anxiety in experimental group.

SECTION I

This section deals with the demographic variables of the sample

Table 1

Frequency and percentage distribution of sample according to the demographic variables
N=60

S. No	Demographic Variables	Control Group (n=30)		Experimental Group (n=30)	
		Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
1.	Age				
	a. <50 years	22	73.3	13	43.3
	b. >51 years	8	26.7	17	56.7
2.	Relgion				
	a. Hindu	27	90.0	29	96.7
	b. Muslim	1	3.3	0	-
	c. Christian	2	6.7	1	3.3
3.	Marital Status				
	a. Married	28	93.3	27	90.0
	b. Widower	2	6.7	3	10.0
4.	Education status				
	a. Illiterate	4	13.3	9	30.0
	b. Primary education	8	26.7	8	26.7
	c. Secondary education	8	26.7	5	16.7
	d. Degree	10	33.3	8	26.7

5.	Occupation				
	a.House wife	10	33.3	11	36.7
	b.Govt job	5	16.7	6	20.0
	c.Private job	7	23.3	4	13.3
	d.Coolie	8	26.7	9	30.0
6.	Family Income				
	a. Rs.5000-10,000	8	26.7	9	30.0
	b.RS.10001-15,000	14	46.7	15	50.0
	c.Above Rs.15,001	8	26.7	6	20.0
7.	Area of living				
	a.Urban	19	63.3	14	46.7
	b.Rural	11	36.7	20	66.7
8.	Family type				
	a.Joint family	20	66.7	14	46.7
	b.Nuclear family	10	33.3	16	53.3
9.	Dietary Pattern				
	a.Vegetarian	2	6.7	2	6.7
	b.Non vegetarian	28	93.3	28	93.3
10.	BMI				
	a.Normal	8	26.7	5	16.7
	b.Overweight	18	60.0	17	56.7
	c.Obese	4	13.3	8	26.7
11.	Family history				
	a.Yes	23	76.7	7	23.3
	b.No	7	23.3	23	76.7

12.	Age at menopause				
	a.Not attained	6	20.0	10	33.3
	b.Attained at 45 –50 yrs	22	73.3	15	50.0
	c.Attained at 51- 55yrs	2	6.7	5	16.7
13.	Duration of Illness				
	a.6-12 months	16	53.3	19	63.3
	b.13-18 months	14	46.7	8	26.7
	c.19-24 months	0	0	3	10.0
14.	Stage of cancer				
	a.Stage I	3	10.0	3	10.0
	b.Stage II	21	70.0	18	60.0
	c.Stage III	6	20.0	9	30.0
15.	Treatment				
	a.Chemotherapy	14	46.7	12	40.0
	b.Radiation therapy	14	46.7	16	53.3
	c.Others	2	6.7	2	6.7
16.	Primary care giver				
	a.Husband	23	76.7	26	86.7
	b.Mother	4	13.3	2	6.7
	c.Others	3	10.0	2	6.7

The above table 1 shows that majority of the breast cancer patients 22(73.3%) were in the age group <50 years in control group and 17(56.7%) were in the age group >51 years in experimental group. Almost equal number of breast cancer patients 90.0% (27) in control group were hindus and

29(96.7%) in experimental group. Almost equal of them 28(93.3%) in control group 27(90.0%) in experimental group 2 were married.

Majority of the patients 10 (33.3%) in control group were graduates and 9(30.0%) in experimental group were illetrate. Amost equal of them 10(33.3%) in control group and 11 (36.7%) in experimental were housewife.Almost equal of them 14 (46.7%) in control group and 15 (50.0%) in experimental had Rs,10001-Rs.15,000 as the family income..

Most of the patients 19 (63.3%) in control group were living in urban area and 20(66.7%) in experimental group were living in rural area. Majority of them 20(66.7%) were joint family in control group and 16(53.3%) were nuclear family in experimental group. Equal number of them 28(93.3%) were non vegetarian in control and experimental group.Almost equal of them 18(60.0%) in control group and 17(56.7%) in experimental group had normal Body Mass Index.

Most of the patients 23 (76.7%) had no history of cancer in control group and 23 (76.7%) had family history of cancer in experimental group. Majority of the patients with breast cancer 22(73.3%) in control group and 15(50.0%) in experimental group attained menopause at 45-50 years. Majority of the patient with breast cancer 16(53.3%) had 6-12 months duration of illness in control group and 19(63.3%) had 6-12 months as duration of illness in experimental group.Majority of the breast cancer patients 21(70.0%) in control group and 18(60.0%) in experimental and were in stage II of cancer. Majority of the patients 14(46.7%) in control group were undergoing radiation and chemotherapy treatment and 16 (53.3%) in experimental group were undergoing chemotherapy. Majority of the patients 23(76.7%) in control group and 26(86.7%) in experimental group were husband was the primary care giver.

SECTION- II

This section deals with the level of anxiety among breast cancer patients in control group and experimental group.

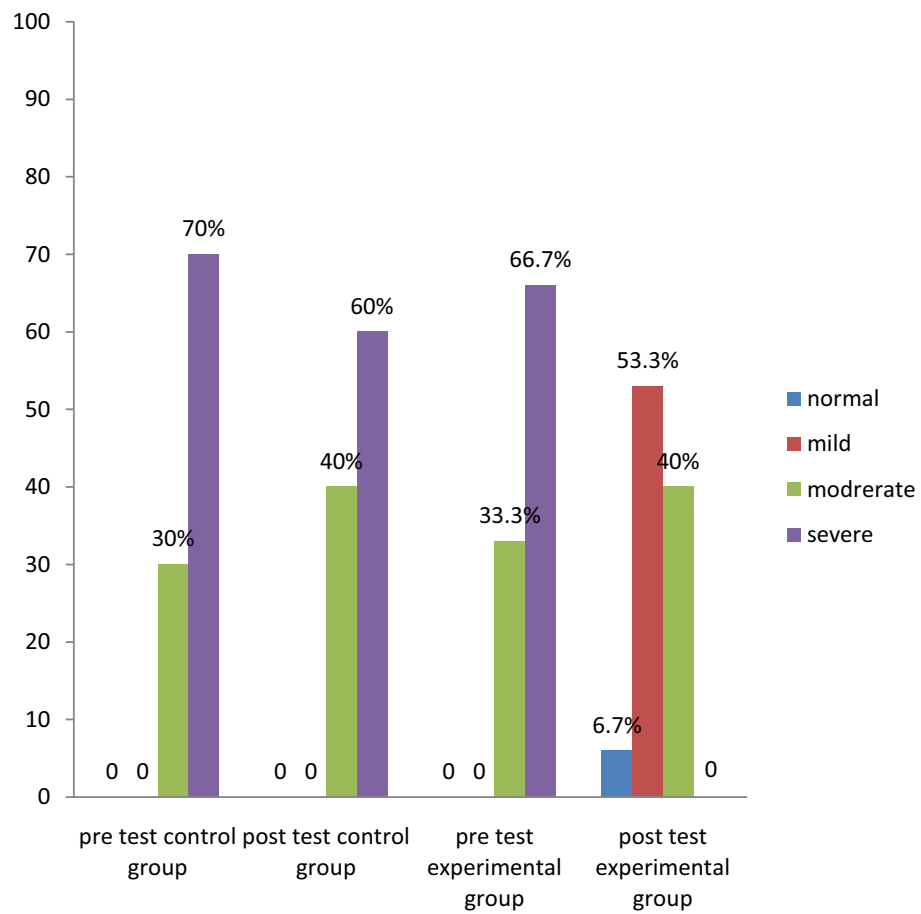


Figure - 2 The Percentage distribution of anxiety scores among breast cancer patients in control group and experimental group.

SECTION –III

This section deals with the comparison of mean scores between pre test and post test level of anxiety among control group and experimental group.

Table -2

Comparison of mean scores between pre test and post test level of anxiety among patients with breast cancer in control group and experimental group

Group	Pre test		Post test		Mean Difference	Paired 't' test
	Mean	SD	Mean	SD		
Control Group Anxiety level	3.70	0.466	3.60	0.498	0.10	1.361
Experimental Group Anxiety level	3.67	0.479	2.33	0.606	1.34	15.232**

**at $p < 0.01$

Table-2 shows the comparison of mean scores between pre test and post test level of anxiety in experimental group. The mean post-test anxiety (2.33) was lower than the pre-test mean (3.67) with the standard deviation (0.606) and the obtained 't' value ($t=15.232$) was significant at $p < 0.01$. Hence the hypothesis1(H1) was accepted.

SECTION IV

This section deals with the comparison of mean scores between post test level of anxiety in control group and experimental group.

Table-3

Comparison of mean post test anxiety score between control group and experimental group.

Group	Sample (n)	Post test mean	Post test SD	Independent 't'test
Anxiety level				
Control Group	30	3.60	0.498	8.839**
Experimental Group	30	2.33	0.606	

** at $p < 0.01$

Table 3 shows comparison of mean post-test level of anxiety in control group and experimental group. The calculated 't' value was more than the table value (2.26) at 0.01 level, which implies that there was a significant decrease at $p < 0.01$ level. So the stated Hypothesis 2 (H2) was accepted.

SECTION V

This section deals with the association between selected demographic variables with pre test level of anxiety in control group.

Table 4

S.No	Demographic Variables	Control Group (n=30)		
		Moderate	Severe	Chi Square
1.	Age			
	a. <50 years	7	15	0.130
	b.>51 years	2	6	
2.	Relgion			
	a. Hindu	8	19	3.192
	b. Muslim	1	0	
	c. Christian	0	2	
3.	Marital Status			
	a.Married	9	19	0.918
	b.Widower	0	2	
4.	Education status			
	a.Illiterate	2	2	2.143
	b.Primary education	3	5	
	c.Secondary education	1	7	
	d.Degree	3	7	
5.	Occupation			
	a.House wife	2	8	2.245
	b.Govt job	1	4	
	c.Private job	2	5	
	d.Coolie	4	4	

6.	Family Income			
	a. Rs.5000-10,000	4	4	
	b.RS.10001-15,000	2	12	3.384
	c.Above Rs.15,001	3	15	
7.	Area of living			
	a.Urban	6	13	
	b.Rural	3	8	0.062
8.	Family type			
	a.Joint family	7	13	
	b.Nuclear family	2	8	0.714
9.	Dietary Pattern			
	a.Vegetarian	1	1	
	b.Non vegetarian	8	20	0.408
10.	BMI			
	a.Normal	3	5	
	b.Overweight	6	12	2.024
	c.Obese	0	4	
11.	Family history			
	a.Yes	7	16	
	b.No	2	5	0.009
12.	Age at menopause			
	a.Not attained	2	4	
	b.Attained at 45 – 50 yrs	6	16	0.491
	c.Attained at 51- 55yrs	1	1	

13.	Duration of Illness			
	a.6-12 months	2	14	
	b.13-18 months	7	7	5.000*
	c.19-24 months	0	0	
14.	Stage of cancer			
	a.Stage I	0	3	
	b.Stage II	7	14	1.429
	c.Stage III	2	4	
15.	Treatment			
	a.Chemotherapy	3	11	
	b.Radiation therapy	5	11	1.088
	c.Others	1	1	
16.	Primary care giver			
	a.Husband	6	17	
	b.Mother	2	2	0.945
	c.Others	1	2	

*at $p < 0.05$

Table – 4 The above table shows the association between selected demographic variables with pre test level of anxiety. The calculated chi square value implies that there was a significant association between selected demographic only in Duration of Illness ($\chi^2=5.000$) with the pre test level of anxiety in control group. Hence the stated hypothesis 3 (H3) was accepted..

SECTION VI

This section deals with the association between demographic variables with pre test level of anxiety in experimental group

Table 5

S.No	Demographic Variables	Experimental Group (n=30)		
		Moderate	Severe	Chi Square
1.	Age			
	a. <50 years	5	8	0.271
	b. >51 years	5	12	
2.	Relgion			
	a. Hindu	9	20	2.069
	b. Muslim	0	0	
	c. Christian	1	0	
3.	Marital Status			
	a.Married	8	19	1.667
	b.Widower	2	1	
4.	Education status			
	a.Illiterate	5	4	2.900
	b.Primary education	2	6	
	c.Secondary education	1	4	
	d.Degree	2	6	
5.	Occupation			
	a.House wife	3	8	4.182
	b.Govt job	2	4	
	c.Private job	0	4	
	d.Coolie	5	4	

6.	Family Income			
	a. Rs.5000-10,000	5	4	
	b.RS.10001-15,000	3	12	3.200
	c.Above Rs.15,001	2	4	
7.	Area of living			
	a.Urban	4	6	
	b.Rural	6	14	0.300
8.	Family type			
	a.Joint family	5	9	
	b.Nuclear family	5	11	0.067
9.	Dietary Pattern			
	a.Vegetarian	1	1	
	b.Non vegetarian	9	19	0.268
10.	BMI			
	a.Normal	1	4	
	b.Overweight	6	11	0.492
	c.Obese	3	5	
11.	Family history			
	a.Yes	2	5	
	b.No	8	15	0.093
12.	Age at menopause			
	a.Not attained	3	7	
	b.Attained at 45 – 50 yrs	5	10	0.150
	c.Attained at 51-55yrs	2	3	

13.	Duration of Illness			
	a.6-12 months	5	14	
	b.13-18 months	3	5	1.984
	c.19-24 months	2	1	
14.	Stage of cancer			
	a.Stage I	0	3	
	b.Stage II	9	9	5.750
	c.Stage III	1	8	
15.	Treatment			
	a.Chemotherapy	4	8	
	b.Radiation therapy	5	11	0.281
	c.Others	1	1	
16.	Primary care giver			
	a.Husband	8	18	
	b.Mother	0	2	5.077
	c.Others	0	2	

*at $p < 0.05$ level

Table – 4 shows the association between demographic variables with pre test level of anxiety. The calculated chi-square value simply that there was no association between selected demographic variables with pre test level of anxiety in experimental group. Hence the research hypothesis⁴ (H₄) was accepted.

CHAPTER V

DISCUSSION

This chapter deals with the findings of the study. The study was done to assess the effectiveness of Yoga (Relaxation) therapy on anxiety among patients with breast cancer at selected hospitals, Trichy.

A Quasi experimental non equivalent pre test post test control group design was used to conduct the study. The level of anxiety among breast cancer patients was measured by self administered Hamilton Anxiety scale. Non probability convenience sampling technique was used. The study sample consisted of 60 breast cancer patients, 30 in control group and 30 in experimental group. Using the above tool, data were collected and analysed. The study findings revealed the following.

The aim of the study was to assess the effect of yoga therapy on anxiety among patients with breast cancer at selected Hospital, Trichy.

Among the demographic variables Majority of the breast cancer patients 22(73.3%) were in the age group <50 years in control group and 17 (56.7%) were in the age group >51 years in experimental group. Almost equal number of breast cancer patients 90.0% (27) in control group were hindus and 29(96.7%) in experimental group. Almost equal of them 28(93.3%) in control group 27 (90.0%) in experimental group 2 were married.

Majority of the patients 10 (33.3%) in control group were graduates and 9(30.0%) in experimental group were illetrate. Amost equal of them 10(33.3%) in control group and 11 (36.7%) in experimental were housewife. Almost equal of them 14 (46.7%) in control group and 15 (50.0%) in experimental had Rs,10001-Rs.15,000 as the family income..

Most of the patients 19 (63.3%) in control group were living in urban area and 20 (66.7%) in experimental group were living in rural area. Majority

of them 20 (66.7%) were joint family in control group and 16 (53.3%) were nuclear family in experimental group. Equal number of them 28 (93.3%) were non vegetarian in control and experimental group. Almost equal of them 18(60.0%) in control group and 17 (56.7%) in experimental group had normal Body Mass Index.

Most of the patients 23 (76.7%) had no history of cancer in control group and 23(76.7%) had family history of cancer in experimental group. Majority of the patients with breast cancer 22(73.3%) in control group and 15(50.0%) in experimental group attained menopause at 45-50 years. Majority of the patient with breast cancer 16 (53.3%) had 6-12 months duration of illness in control group and 19 (63.3%) had 6-12 months as duration of illness in experimental group. Majority of the breast cancer patients 21(70.0%) in control group and 18 (60.0%) in experimental and were in stage II of cancer. Majority of the patients 14 (46.7%) in control group were undergoing radiation and chemotherapy treatment and 16 (53.3%) in experimental group were undergoing chemotherapy. Majority of the patients 23 (76.7%) in control group and 26 (86.7%) in experimental group were husband was the primary care giver.

The reason for the findings were that breast cancer mostly occurred after 40 yrs of age especially among married women, irrespective of the area of living, literacy rate, family history of cancer, family type. Most of them were in Stage II cancer due to lack of awareness regarding the early signs and symptoms of the disease. Most of them were under combined treatment with chemotherapy, radiation therapy and others. This findings was supported by Chi L. C, Emily K. N, and Kamala D.

The first objective of the study was to assess the pre test level of anxiety among patients with breast cancer in control group and experimental group.

The result of this study showed that the pre test level of anxiety in control group were moderate 30(9), severe 70 (21). In experimental group the pretest level of anxiety were moderate 33(10), severe 66(20). The reason for this result was that the diagnosis of cancer itself is a great stress for the patient as well as their family members. It induces both physical and psychological problems like anxiety and depression which lower their self esteem and quality of life. Hence the investigator planned to provide yoga (relaxation therapy) to breast cancer patient so that their anxiety level can be reduced. These findings were supported by Fafouti et al. (2011) and Dizon D. (2014)

The second objective was to assess the effectiveness of Yoga (Relaxation) therapy among patients with breast cancer in experimental group.

The result of the present study showed that in experimental group the mean pre test level of anxiety 3.67 and mean post test level of anxiety 2.33 respectively. The findings showed that the mean post test level of anxiety was significantly lesser than the mean pre test level of anxiety among patients with breast cancer who received Yoga (Relaxation therapy). The calculated 't' value was higher than the table value at $p < 0.01$ level. The reason for this result was that after giving the intervention yoga (relaxation therapy) in experimental group the patient had reduced physical symptoms like reduced fear, improved quality of sleep and sense of wellbeing. The patient also had a positive outlook on life and involved in all her activities of daily living. Hence found that yoga therapy was effective in reducing anxiety in experimental group. These findings were supported by Lora KB (2013). Hence the stated hypothesis 1 (H₁) was accepted.

The third objective was to compare the mean post test level of anxiety among breast cancer patients in control group and experimental group.

The mean post test level of anxiety (2.33) was significantly lower in experimental group who received yoga (relaxation therapy) than the control group (3.60). The calculated 't' value was more than the table value at $p < 0.01$ level of significance which implies that there was a significant decrease on the level of anxiety among breast cancer patients in experimental group as compared to the control group. The reason for this findings was that patient with breast cancer perceived normal, mild and moderate levels of anxiety after Yoga (relaxation) therapy in experimental group ,but patients in control group perceived moderate and severe levels of anxiety without any intervention. These findings were supported by Cohen, L. (2014). Hence the stated hypothesis2 (H2) was accepted.

The fourth objective of this study was to find out the association between selected demographic variables with the pre test level of anxiety in control group.

The calculated chi – square value revealed that there was a significant association between selected demographic variable only in duration of illness ($\chi^2=5.000$) with the pre test level of anxiety . These findings were supported by Chi, L. C, Emily, K.N, and Kamala, D.(2012) .Hence the stated hypothesis3 (H3) was accepted.

The fifth objective of this study was to find out the association between selected demographic with the pre test level of anxiety in experimental group.

The calculated chi-square values were less than the table value which implies that there was no association between the selected demographic variables with the pre test level of anxiety in experimental group. These findings were contradicted by Chi, L .C ,Emily, and K.N ,Kamala D (2012). So the stated research hypothesis4 (H4) was rejected.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

This chapter presents the summary of the study, conclusion and implication for different areas like nursing practice, nursing education, nursing research, nursing administration, limitation and recommendations for further study.

SUMMARY OF THE STUDY

A Quasi experimental study to assess the effectiveness of Yoga (Relaxation) therapy on anxiety among breast cancer patients at selected hospital, Trichy.

THE FOLLOWING OBJECTIVES WERE SET FOR THE STUDY

1. To assess the pre test level of anxiety among patients with breast cancer in control group and experimental group
2. To assess the effectiveness of Yoga (Relaxation) therapy on anxiety among patients with cancer breast in experimental group
3. To compare the mean post test level of anxiety among patients with breast cancer in control group and experimental group.
4. To find out the association between the selected demographic variables with the pre test level of anxiety among breast cancer patients in control group.
5. To find out the association between the selected demographic variables with the pre test level of anxiety among breast cancer patients in experimental group.

The conceptual model of the study was based on J.W.Kenny's' open system model. The study was conducted by using Quasi experimental non equivalent pre test post test control group design. Non probability convenience

sampling was used to select the samples. The sample size used for the study was 60 breast cancer patients, 30 in control group and 30 in experimental group. The instrument used for data collection was self administered Hamilton Anxiety scale (HAM-A).

The data was analysed and interpreted in terms of objectives and research hypothesis. Descriptive statistics, (frequency, percentage, mean and standard deviation) and inferential statistics (paired 't' test, independent 't' test and chi-square) were used to test the research hypothesis.

MAJOR FINDINGS OF THE STUDY

1. Majority of the breast cancer patients were in the age group <50 years in control group and in experimental group were in the age group >51 years.
2. Majority of the patients in control group and experimental group belongs to hindu religion.
3. Majority of the patients in control group and experimental group were married
4. Majority of the patients in control group were graduates and illiterates in experimental group.
5. Majority of the patients in control group and experimental group were housewives.
6. Majority of the patients family income in both control group and experimental group were Rs 10,001 – 15,000.
7. Majority of the patients in control group were living in Urban area and in experimental group were living in Rural area.
8. Majority of the patients in control group were from joint family and in experimental group were from nuclear family.
9. Majority of the patients were Non vegetarian in both control group and experimental group.

10. Majority of the patients in both control group and experimental group were overweight.
11. Majority of the patients had family history of cancer in control group and no family history of cancer in experimental group.
12. Majority of the patients attained their menopause at 45-50 years of age both in control group and experimental group.
13. Majority of the patients duration of illness were 6-12 months in control group and experimental group.
14. Majority of the patients were in stage - II of cancer both in control and experimental group.
15. Majority of the patients were undergoing chemotherapy and radiation therapy in control group and in experimental group were undergoing chemotherapy.
16. Majority of the patients primary care giver were husbands
17. In this study the majority of the patients with breast cancer had moderate and severe level of anxiety in both control group and experimental group.
18. In this study the post test level of anxiety was lesser than the pre test level of anxiety in experimental group after Yoga (relaxation) therapy. The calculated 't' value was higher than the table value and significant at $p < 0.01$ level.
19. In this present study the mean post test level of anxiety was significantly lesser in experimental group who receive yoga (relaxation) therapy than the mean post test level of anxiety in control group. The calculated t value was higher than the table value and significant at $p < 0.01$ level.
20. There was a significant association between selected demographic variables with pre test level of anxiety in control group.
21. There was no significant association between demographic variables with pre test level of anxiety in experimental group.

CONCLUSION

This study brought out the following conclusions

Yoga (Relaxation) therapy provides coping strategies and is one of the best measure that may help to reduce the physical symptoms and the anxiety level among patients with breast cancer. Yoga (Relaxation) therapy is an complimentary and alternative therapy that provides a broad holistic approach and promote a sense of well being.

Relaxation therapy helps to calm the mind, relax the body, streng then the immune system and found to have healing effects.It helps people face and accept life situation positively.Yoga (Relaxation) therapy improves emotional security and self esteem.

Yoga therapy is one of the natural,safe and non invasive therapies .It inducessleep, relieves pain, reduces negative feelings, disturbing emotions, exhaustion and stress.Thus the investigator concludes that relaxation therapy was an effective means to reduce the level of anxiety to a greater extent.

IMPLICATION

The findings of the study have several implications in nursing practice, nursing education, nursing research and nursing administration.

NURSING PRACTICE

Numerous implications can be drawn from the present study for practice which promotes and creates a new dimension to nursing profession.

The study findings will create awareness among nurses and enlighten their knowledge about the importance of yoga therapy in reducing anxiety among breast cancer patients. Nurses must be trained to assess the level of anxiety and should understand about the importance of non pharmacological

measure to reduce the level of anxiety in patients with cancer and other chronic diseases.

Anxiety is one of the major concept that has to be taken care of once a person is diagnosed with cancer as anxiety causes low self esteem, insomnia, depression, decreased sense of well being, social isolation. To overcome all such things the present study finds that yoga is one of the best method if implicated removes negative feelings, accepts reality with an positive outlook, brings hope and self confidence.

Nurses can incorporate yoga therapy as one of the best alternative and complimentary therapy for effective management of anxiety among patients with cancer Yoga(Relaxation) therapy relieves stress, anxiety, pain, suffering, improves blood circulation, adequate oxygen supply, repairs any damages by itself and improves physical, mental functions of the body. It relaxes both body and mind and brings peace within. It reduces both physical and psychological turmoil , induce good sleep, reduce fatigue and pain.

The present study also creates awareness among the public and nurses to use yoga in clinical setting especially in oncological wards to provide a holistic care and to make significant contribution to promote the overall well being of the patient. The nurse and health professionals should recognize the benefits of Yoga (Relaxation) therapy and implement it for the speedy recovery of the patient from many ailments.

Nurses can utilize the evidenced based practice in improving the quality and standards of nursing care. Yoga (Relaxation) therapy can be easily incorporated into clinical practice without the additional cost or time.

NURSING EDUCATION

The practical knowledge of the nurse depends upon the education they receive. So the nursing education should prepare the nurses to realise their responsibility, as nurse educator has to render health services in various settings like community, hospital, Primary health care centers.

Globally Cancer is the second most common cause for mortality .The diagnosis of cancer itself is a real threat for the patients and hence they undergo physical, psychological, social and emotional problems. The psychological problems like anxiety, depression, insomnia etc are commonly seen and reported by majority of the patients.

Orientation can be given to all new staff on use of yoga therapy among breast cancer patients. The present study will help the nursing students to understand the available complementary and alternative therapies that can be safely practised and implemented by the nursing personnels.

Inservice education can be given to the nursing personnel regarding use of yoga therapy on reduction of anxiety in hospital settings. Continuous nursing education programmes can be planned and implemented to update their knowledge with current trends and practice.

To conduct seminars, workshops, conferences and symposiums regarding the use of Yoga as a complementary and alternative therapy in patients with cancer and other terminal illness.

The present study will help nursing students to understand the advantages and importance of using Yoga (Relaxation) therapy in reduction of anxiety among patients with cancer. The results of this study will be used as an example by the nurse educators to teach the nursing students regarding the implementation of yoga in patients with all type of cancers.

NURSING RESEARCH

Extensive researchers can be conducted in various settings regarding yoga therapy to identify the efficacy, feasibility and acceptability.

The present study would help the future nursing students to carry out further research on implementation of yoga (Relaxation) therapy in hospital and community settings.

It is imperative to undertake more research in the field of complementary and alternative therapy to the patients of all disease conditions. The findings of this study will help the nurses to understand the importance of yoga therapy and motivate them to carry out more studies in this field. Yoga therapy may be studied more scientifically and will be used as an evidenced based nursing intervention.

The study will lay the foundation to conduct study on large population to strongly prove the efficacy of Yoga (Relaxation) therapy. The study also helps to focus on the patients satisfaction and well being in the oncological ward during the use of yoga therapy.

The study findings will also help the nurse researchers in studying the constraints and barriers in providing yoga therapy among hospitalised patients with breast cancer.

NURSING ADMINISTRATION

Nurse as an administrator has a role in planning the policies for imparting health information to the target population. The present study will help the nurse administrator to understand the importance of yoga therapy among patients with breast cancer. It is effective in terms of man, money, time and material.

Nurse administrators can develop nursing practice standards, protocols and materials on assessment of anxiety and managing the level of anxiety through the use of Yoga (Relaxation) therapy.

Nurse administrators should encourage nurses to actively participate in yoga therapy classes which is cost effective and beneficial. Staffing will be improved to provide comprehensive care to the hospitalised patient with cancer.

The nurse administrator should conduct in service education and continuous nursing education to all nurses and make a policy decision to use Yoga (Relaxation) therapy among cancer patients in the hospital.

Nurse administrators may involve themselves in establishing centres for practising yoga therapy both in hospital and community settings.

LIMITATIONS

1. The patients were not randomly assigned
2. The convenience sampling restricts the generalization.
3. The study sample is too small.Hence we cannot generalize the findings.

RECOMMENDATIONS

1. The Quasi experimental study can be conducted on a larger sample to generalize the study findings.
2. A Quasi experimental study can be conducted on long term basis to prove the effectiveness of relaxation therapy.
3. A Quasi experimental study can be conducted with only experimental group for longer duration.
4. A true experimental study can be conducted to assess anxiety among patients with other type of cancer.

5. A comparative study can be done to compare the effectiveness of Yoga therapy Vs other alternative therapies on anxiety among patients with breast cancer.
6. A longitudinal study can be undertaken to assess the effectiveness of Yoga (Relaxation) therapy among patients with any type of cancer.
7. Qualitative studies can be conducted on yoga therapy to provide evidence based practice in quality care among patients with cancer.

REFERENCES

- Balakan., O. et al.(2015). *Anxiety, depression, quality of life through the use of complementary and alternative medicine among breast cancer patients in Turkey*. Journal of cancer research and therapeutics, Volume 29, Number 6.
- Bower, J.E. (2008). *Behavioural symptoms in patients with breast cancer and survivors*. Journal of clinical oncology, Volume 26, Number 5.
- Brunner., Siddhartha. (2014). *The text book of Medical surgical nursing*, (13th edition).Lippincott publications, USA: Lippincott publications.
- Brown., R.P.et al.(2005) .*Yogic Breathing in the treatment of stress,Anxiety and depression*, Journal of Alternative and complementary medicine,Volume 57, Number 3.
- Baqutayan., S. M. S .(2012). *The effect of anxiety on breast cancer patients*. Indian Journal of Psychological Medicine, Volume 34, Number 2.
- Bland K,Copel., E.M.(2010) *Breast:Comprehensive Management ofBenign and Malignant Diseases*,(2nd edition), Philadelphia:Saunders Publication.
- Bhardwaj., A. (2004). *Cancer causes and prevention*, (1stedition), New Delhi:Goodwill Publishers.
- Carthy., M. (2004). *Fundamental techniques of cancer care* (7th edition), London: Churchill Livinstone.
- Ching., C. L . et al .(2012). *Anxiety in patientswith breast cancer undergoing treatment*. Joanna Briggs Institute, Volume 8, Number 25.
- Cramer., H. Lange., S. Klose., P. Paul., A. and Dobos., G. (2012). *yoga for breast cancer patients and survivors*. Bio Med Central cancer, Volume 18, Number 5.

- Crosswell., A.D. et al. (2015). *Mindfulness meditation for young breast cancer survivors*. *Cancer nursing*, Volume 121, Number 11.
- Chandwani .,D.K. et al. (2012). *Cancer related stress and Complementary and Alternative medicine. Evidence based complementary and alternative medicine*.
- Castellar., J. Fernandes ., A.C. Tosto., E.C. (2011). *Beneficial effects of Panic meditation on the Mental health And Quality of life of Breast Cancer survivors*. Volume 12, Number 6.
- Distasio., A.S. (2008). *Integrating yoga into cancer care. Clinical Journal of oncology Nursing*, Volume 12.Number 1.
- Ettinger .,S.D. (2012). *supportive care in cancer therapy*,*Springer science and Business media*.
- Eyles., C. et al. (2015). *Mindfulness for the self - Management of Fatigue,Anxiety and depression in women with metastatic breast cancer*, *Integrative cancer Therapies*, Volume 14, Number1.
- Fisherbein., M . (2009). *The most heard less warning against cancer treatment*, New York: Tribune Publishers.
- Fafouti .,M. et al .(2011). *A cross sectional study on depression,anxiety and general Psychopathology in breast cancer patients*. *Invivo*,Volume 24, Number 5.
- Fann., J.R. et al. (2008). *Major depression and anxiety after breast cancer:A review of epidemiology and treatment*,*General. Hospital Psychiatry*, Volume 30, Number 2.
- Galloway., K. S. et al. (2012).*Depression and anxiety symotoms relate to distinct components of pain experience among patients with breast cancer*. *Pain Research and treatment*,Volume 12, Number 5.

- Grove., S.K. (2013). *Anxiety ,not depression seems to be problem for long term cancer survivors and spouses,Lancet oncology*, Volume 7, Number 5.
- Greenlee .,H. (2014). *Yoga and meditation help cancer patients with Anxiety and Mood.Journal of National Cancer Institute*, Volume 12, Number 8.
- Giju Thomas .(2010). *A quasi experimental study to determine the effectiveness of progressive muscle relaxation technique on anxiety among elderly people in selected old age home at Bangalore. Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore.*
- Holland., J.C. Alici., Y. (2010). *Management of distress in cancer patients. Journal of supportive oncology*, Volume 8, Number 1.
- Hegel., M.T. et al.(2006). *Distress, Psychiatric syndromes and impairment of function in women with newly diagnosed breast cancer*,Volume 106, Number 12.
- Haralambous., A. Giannaakopoulou., M. Bojas., E. and Paikousis., L. (2015). *A Randomised controlled trial for effectiveness of PMR as anxiety reducing intervention in Breast cancer patients undergoing chemotherapy. Journal of cancer research and therapeutics*, Volume 10, Number 4.
- Holland.,J.C., Alici., Y. (2010).*Management of distress in cancer patients. Journal of supportive Oncology*,Volume 8, Number 1.
- Illar. E.K.A et al .(2009). *Prediction of local recurrence, distant metastasis, and death after breast conserving therapy in early stage invasive breast cancer. Journal of clinical Oncology*,Volume 27, Number 8.
- Joyce.,M .Esther., M. (1997). *Medical surgical Nursing*, (1st Edition). India: Harcourt brace and company Asia.

- Joyce. K.(1997). *Medical Surgical Nursing*, Pennsylvania: Spring house Corporation.
- Jordan Ministry of Health (2012). *Cancer Incidence in Jordan*.
- Jacob., K. L.(2008). *Coping with cancer*, New York: Nova Science Publishers .
- Jadoulle., V. et al.(2006). *Stress and coping with advanced cancer. A six month prospective study*.Cancer Bulletin,Volume 93, Number 7.
- Kvillemo, P. Branstrom, R. (2011).*Experiences of a Mindfulness Based Stress – Reduction Intervention among Patients with cancer*. Cancer Nursing, Volume 34, Number 1.
- Kyranou., M. et al .(2014) . *Predictors of initial levels and Trajectories of Anxiety in women before and for 6 months after Breast cancer surgery*, Cancer Nursing,Volume 37, Number 6 .
- Kirkwood., G. et al.(2005). *Yoga for Anxiety:A systematic review of the research*. *British Journal of medicine*. Volume 39, Number 12.
- Kelly., K.M. et al.(2010). *Complementary and alternative medicine for use in supportive care in cancer*. Support cancer centre, Volume 15, Number 14.
- Lally, M.R., Hydeman, A.J. ,Schwert K, Henderson Heather, Stephen B.Edge (2012). *Exploring the first days of Adjustment to Cancer*. Cancer Nursing, Volume 35, Number 1.
- Lewis., Chinthamani.(2011).*Medical Surgical Nursing*, (2nd Edition). Haryana: Elsevier Publication.
- Laszlo., J. (2003). *Understanding cancer*, (1st edition),New York:Harper and Row Publishers.

- Mick., N.V. Hampshire, M.K. Metz., J.M .(2006) .*Patient identification of complementary and alternative medicine therapies following cancer diagnosis*. Cancer nursing, Volume 12, Number 6.
- Millar., E.K.A. et al. (2009). *Prediction of local recurrence ,distant metastases, and death after breast – conserving therapy in early stage invasive breast cancer using a five biomarker panel*. *Journal of clinical oncology*, Volume 27, Number 28.
- Maharishi. Y.J. *Simplified Kundalini Yoga Exercises, Aliyar Pollachi, India*.
- Manuel., C. J . et al. (2007). *Younger women’s perception of coping with cancer*, Cancer Nursing, Volume 30, Number 2.
- Novey DW. (2009) *Clinician’s complete reference to complementary and alternative medicine*. Missouri: Mosby Publishers.
- Nishi Verma.(2011). *A study on effect of progressive muscle relaxation on anxiety among chronically ill patients in a selected hospital in Mangalore*. Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore.
- Obeidat., F.R, Dickerson., S.S, Homish., G.G, Alqassi., M.N , and Lally., M.R (2013). *Controlling fear*. *Cancer Nursing*, Volume 36, Number 15.
- Oswald. (2001). *Cancer and Quality of life and palliation*, (5th edition), Washington: Armed Forces Publishers.
- Perez., A. C. et al.(2004). *Principles and practice of radiation oncology*,(4th edition) Philadelphia: Lippincott, Williams and Wilkins.
- Potter., Perry.,(2009). *Fundamental of Nursing* (7th Edition). Publication, India: Elseiver Publication.
- Patrick., M .L. (2003) *Medical Surgical Nursing pathophysiological concepts*, Philadelphia:Lipincott Company.

Potter P.A, Perry A.G (2001). *Fundamentals of nursing*. (5th edition), St.louis: Mosby Publishers.

Selva., O.E. Zurrída.,S. (2005). *Breast cancer: A practical guide*, (3rd edition), New York: Elseiver publication.

Tang., L.P., Chiou P.C, and Wang C.L (2011). *Correlate Death Anxiety among Taiwanese Cancer Patients*. *Cancer Nursing*, Volume 34, Number 4,

Tillinghast.,K.(2014). *Yoga for stress, Anxiety and depression*. *Fitness International Journal*, Volume 10, Number 6.

Trofino., R. B .(2002). *Nursing care of cancer patients*,(1stedition). Philadelphia: F.A.Davis Company.

Vega., P.C. (2014). *Guidelines released on complementary therapy in breast cancer*. *EducationClinical Briefs*, Medscape.

[www.cancer.gov/cancer-topics/pdq/supportive-care/adjustment/Health Profession](http://www.cancer.gov/cancer-topics/pdq/supportive-care/adjustment/Health-Profession)

[www.moh.gov.jo/Moh/Files/Publication/Annual incidence/cancer](http://www.moh.gov.jo/Moh/Files/Publication/Annual-incidence/cancer)

www.vethathirimaharishi.org

www.ncbi.nlm.nih.gov/pmc/articles

www.medicinenet.com/anxiety/article.htm

www.medicalnewstoday.com/info/anxiety

www.breastcancer.org.breastcancer101

www.moh.gov.jo

www.bccancer.bc.ca

www.cancer.org>.....>Mind,Body and Spirit

www.cancerresearchuk.org

www.health.harvard.edu/mind-and-mood/yoga-for-anxiety

www.yogaoutreach.com

www.bccancerfoundation.com

www.ncbi.nlm.nih.gov

www.medscape.org

www.yogajournal.org

wikipedia.org/wiki/Research_on_anxiety

Walter Murphy P.G (1995). *Text book of clinical Oncology* ,2nd edition,
American cancer society ,Washington DC.

Wurtzen., H. et al .(2015). *Effectof mindfulness based stress reduction on somatic symptoms, distress, mindfulness and spiritual well-being in women with breast cancer. Cancer nursing*, Volume 120, Number 10.

Woodyard., C.(2011). *Exploring the therapeutic effects of yoga and its ability to increase quality of life, International Journal of yoga*, Volume11, Number 5.

Yoga for Anxiety and depression (2009),Harvard Medical School:Harvard Health Publications.

APPENDIX - A

(a) LETTER REQUESTING FOR VALIDATION

From

Mrs. Smitha T.V
II Yr M.Sc (N).,
Dr. G. Sakunthala College of Nursing,
Trichy.

To

Through

The Principal,
Dr.G.Sakunthala College of Nursing,
Trichy.

Respected Madam,

Sub: Seeking experts opinion and suggestions for establishing content validity of the tool.

I Mrs. SMITHA T.V II year M.Sc (N)., student of Dr.G.Sakunthala college of Nursing humbly request you to go through the tools for data collection for my dissertation, to be submitted to Dr.M.G.R. Medical University, Guindy, Chennai, as partial fulfilment of my University requirements for the award of the Degree of Masters of Science in Medical surgical Nursing.

The problem statement is “A Quasi experimental study to assess the effectiveness of yoga therapy on anxiety among patients with breast cancer at selected hospitals , Trichy.

With regard to this, I request you to give your valuable suggestions regarding the appropriateness of the tool, which I have enclosed.

I also request you to kindly sign the certificate stating that the tool has been validated. Your kind co-operation and your expert judgement will be highly appreciated.

Thanking You

Date:

Yours faithfully,

Place:

Mrs. Smitha.T.V

APPENDIX-A

(b)i. LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH PROJECT

From

The Principal,
Dr.G.Sakunthala College of Nursing
Trichy.

To

Dr. Arun Seshachalam MD,DNB,DM,ECMO,
Medical and Paediatric Oncologist,
G.V.N Hospital,
Trichy-5

Respected Madam.

Sub: Letter requesting permission to conduct research study.

This is to introduce Mrs. SMITHA T.V M.Sc Nursing II Year student of Dr.G.Sakunthala College of Nursing, Trichy. She is to conduct a research project which is submitted to the Tamilnadu Dr. M.G.R. Medical University, Chennai, in partial fulfilment of University requirement for the award of Master Degree in Nursing.

TOPIC: “A Quasi experimental study to assess the effectiveness of yoga therapy on anxiety among patients with breast cancer at selected hospitals, Trichy.”

The student is interested in conducting her study among breast cancer patients attending chemotherapy and radiation therapy unit in your hospital. I shall be obliged if you kindly grant permission for conducting her study in your esteemed hospital.

Thanking You,

Yours Sincerely,

(PRINCIPAL)

APPENDIX-A

(b) ii. LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH PROJECT

From

The Principal,
Dr.G.Sakunthala College of Nursing,
Trichy

To

Dr. V. Govindaraj M .S,F.I.C.S,Laposcopic Surgeon,
Dr.G.Viswanathan Multi Speciality Hospital,
Trichy-5

Respected Madam.

Sub: Letter requesting permission to conduct research study.

This is to introduce Mrs.SMITHA T.V M.Sc Nursing II Year student of Dr.G.Sakunthala College of Nursing, Trichy. She is to conduct a research project which is submitted to the Tamilnadu Dr. M.G.R. Medical University, Chennai, in partial fulfilment of University requirement for the award of Master Degree in Nursing .

TOPIC :“A Quasi experimental study to assess the effectiveness of yoga therapy on anxiety among patients with breast cancer at selected hospital , Trichy”.

The student is interested in conducting her study among breast cancer patients who are under chemotherapy and radiation therapy treatment in your hospital. I shall be obliged if you kindly grant permission for conducting study in your esteemed institution.

Thanking You,

Yours Sincerely,

(PRINCIPAL)

APPENDIX - A

(c) REQUISITION LETTER TO MEDICAL GUIDE

From

Mrs. Smitha T.V
II year M.Sc(N).,
Dr.G.Sakunthala College of nursing,
Trichy.

To

Dr.Arun Seshachalam MD ,DNB,DM,ECMO.,
G.V.N Hospital,
Trichy.

Respected sir,

Sub: Requesting permission for the guidance to conduct the study regarding,

I am studying in II year, M.SC (N)., in Dr. G.Sakunthala College of Nursing, Trichy. I would like to conduct a study as a partial fulfilment for the degree of Masters in Nursing.

TOPIC: “A Quasi experimental study to assess the effectiveness of yoga therapy on anxiety among patients with breast cancer at selected hospital, Trichy .

I humbly request you to guide me and kindly give suggestions for conducting the study.

Thanking you in anticipation

Place:

Yours Sincerely,

Date:

SMITHA T.V

APPENDIX – B

LIST OF EXPERTS CONSULTED FOR THE CONTENT VALIDITY OF RESEARCH TOOL

Mrs.PUNITHAVATHY, M.sc (N).,
Principal,
Thanthai Rover College of Nursing
Perambalur.

Dr.RAJINA RANI, M.sc (N),Ph.D (N).,
Principal,
Rass Academy College of Nursing
Poovanthi
Sivagangai District.

Dr.K.S PUSHPALATHA,M.sc (N),Ph.D(N),MBA,MA,M.Phil(Mgt).,
Professor,
Shanmuga College of Nursing,
Salem.

Mrs.BHUVANA,M.sc (N).,
Reader,
Gokulam College of Nursing,
Salem.

Mrs.JEYANTHI,M.sc (N).,
Reader,
Our Lady College of Nursing,
Thanjavur.

APPENDIX – C

PART -1

DEMOGRAPHIC DATA

1.Age

a.> 50 years

b.< 51 years

2.Religion

a.Hindu

b.Muslim

c.Christian

3.Marital status

a.Married

b.Unmarried

4.Educational status

a.Illiterate

b.Primary education

c.Higher secondary

d.Graduate or above

5.Occupation

a.House wife

b..Private job

c.Government job

d.Coolie

6.Income of the family

a.Rs.5000 – Rs.10,000/-

b.Rs.10,001 – Rs.15,000/-

c.Above Rs.15,001/-

7.Area of living

a.Urban

b.Rural

8. Family type

a.Joint family

b.Nuclear family

9. Dietary pattern

a.Vegetarian

b.Non vegetarian

10.BMI

a.Normal

b.Overweight

c.Obese

11..Family history of Breast cancer

a. yes

b.No

12. Age at menopause

- a. Not attained
- b. Attained at 45 – 50 years
- c. Attained at 51 – 55 years

13. Duration of illness

- a. 6 – 12 months
- b. 13 – 18 months
- c. 19 - 24 months

14. Stage of cancer

- a. Stage I
- b. Stage II
- c. Stage III

15. Treatment

- a. Chemotherapy
- b. Radiation therapy
- c. Others

16. Primary care giver

- a. husband
- b. Mother
- c. Others

SECTION II

Hamilton Anxiety Rating Scale (HAM-A)

0=Not present 1=Mild 2=Moderate 3=Severe 4= Very severe

1. Anxious mood

Worries, anticipation of the worst, fearful anticipation, irritability

2. Tension

Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax

3. Fears

Of dark, of stranger, of being left alone, of animals, of traffic, of crowds

4. Insomnia

Difficulty in falling asleep, broken sleep, unsatisfied sleep and fatigue of waking, dreams, nightmares, night terrors

5. Intellectual

Difficulty in concentration, poor memory

6. Depressed mood

Loss of interest, lack of pleasure in hobbies, depression, early waking, diurnal swing

7. Somatic (muscular)

Pains and aches, twitching, stiffness, myoclonicjerks, grinding of teeth, unsteady voice, increased muscular tone.

8.Somatic (sensory)

Tinnitus, Blurring of vision, hot and cold flushes feelings of weakness, pricking sensation.

9.Cardiovascular symptoms

Tachycardia, palpitations, pain in the chest, throbbing of vessels, fainting feelings, missing beat.

10.Respiratory symptoms

Pressure or constriction in chest, choking feelings, sighing, dyspnea

11.Gastrointestinal symptoms

Difficulty in swallowing, abdominal pain, burning sensation, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loos of weight, constipation.

12.Genitourinary symptoms

Frequency of micturition, amenorrhea, menorrhagia, development of frigidity, premature ejaculation, loss of libido, impotence.

13. Autonomic symptoms

Dry mouth, flushing, pallor, tendency to sweat, giddiness, loss of libido, impotence

14. Behaviour at interview

Fidgeting, restlessness or pacing, tremor of hands, furrowed brow, strained face, sighing or rapid respiration, facial pallor swallowing etc.

Scoring Key

Normal Range 0-13

Mild 14-17

Moderate 18-24

Severe 25 and over

பகுதி -1
ஐனத்தொகை விவரம்

1. வயது

அ) 50 வயதிற்கு உட்பட்டவர்

ஆ) 51 வயதிற்கு மேற்பட்டவர்

2. மதம்

அ) இந்து

ஆ) முஸ்லிம்

இ) கிறிஸ்தவர்

3. திருமண விவரம்

அ) திருமணம் ஆனவர்

ஆ) திருமணம் ஆகாதவர்

4. கல்வி நிலை

அ) படிப்பறிவில்லை

ஆ) தொடக்கநிலை

இ) மேல்நிலை

ஈ) பட்டதாரி

5. தொழில்நிலை

அ) இல்லத்தரசி

ஆ) அரசாங்க உத்தியோகம்

இ) தனியார் நிறுவனம்

ஈ) கூலி வேலை

6. மாத வருமானம்

அ) 5001 - 10000

ஆ) 10001 -15000

இ) 15001 -க்கு மேல்

7. வசிப்பிடம்

அ) நகரம்

ஆ) கிராமம்

8. குடும்ப நிலை

அ) கூட்டுக்குடும்பம்

ஆ) தனிக்குடும்பம்

9. உணவு பழக்கம்

அ) சைவம்

ஆ) அசைவம்

10. சராசரி உடல் தன்மையின் குறியீடு

அ) சீரான உடல் எடை

ஆ) அதிக உடல் எடை

இ) உடல் பருமன்

11. உங்கள் குடும்ப பின்னணியில் யாருக்கேனும் மார்பக புற்றுநோய்

இருக்கிறதா?

அ) ஆம்

ஆ) இல்லை

12. உதிரப்போக்கு நிரந்தரமாக நின்ற வயது

அ) உதிரப்போக்கு நிற்கவில்லை

ஆ) உதிரப்போக்கு நின்றது 45 – 50 வயது

இ) உதிரப்போக்கு நின்றது 51 – 55 வயது

13. நோயின் காலம்

அ) 6 – 12 மாதம்

ஆ) 13 -18 மாதம்

இ) 19 - 24 மாதம்

14. புற்றுநோயின் தன்மை

அ) முதல் நிலை

ஆ) இரண்டாம் நிலை

இ) மூன்றாம் நிலை

15. புற்றுநோய்க்கு சிகிச்சை எடுத்துக்கொள்ளும் முறை

அ) கீமோ சிகிச்சை முறை

ஆ) ரேடியேஷன் சிகிச்சை முறை

இ) மாற்று சிகிச்சை முறைகள்

16. நோயாளியை கவனித்துக்கொள்ளும் நபர்

அ) கணவன்

ஆ) அம்மா

இ) மற்றவர்கள்

பகுதி -2

1. மார்க்க புற்றுநோய் கண்டறிந்த பின் உங்களின் மனநிலை?

அ) கவலைகள்

ஆ) மோசமான எதிர்பார்ப்பு

இ) பயத்துடன் எதிர்பார்ப்பு

ஈ) எரிச்சல்

0	1	2	3	4
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2. பதற்றம் சம்மந்தப்பட்ட அறிகுறிகள்

அ) பயமான உணர்வுகள்

ஆ) களைப்பு

இ) எதிர்பாராத பதில்கள்

ஈ) எளிதாக கண்ணீர் சிந்துதல்

உ) நடுக்கம்

ஊ) அமைதியில்லாதது போன்ற உணர்வு

எ) ஓய்வெடுக்க இயலாமை

0	1	2	3	4
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3. இவற்றில் எது உங்களுக்கு பய உணர்வை தூண்டுகிறது?

அ) இருட்டு

ஆ) அந்நியர்கள்

இ) தனியாக விட்டு நிற்பது

ஈ) விலங்குகள்

உ) போக்குவரத்து

ஊ) கூட்டம்

0	1	2	3	4
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4. சரியான தூக்கம் இல்லாமையால் ஏற்படும் அறிகுறிகள்?

அ) உறங்குவதற்கு சிரமம்

ஆ) தூக்கத்தில் இடையூறு

இ) திருப்தியற்ற தூக்கம்

ஈ) விழித்தவுடன் சோர்வு

உ) கனவுகள்

ஊ) இரவு நடுக்கங்கள்

0	1	2	3	4
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5. புரிந்து கொள்ளும் தன்மை குறைவதால் உண்டாகும் மாற்றங்கள்?

அ) கவனக்குறைவு

ஆ) நினைவாற்றல் குறைவாக இருத்தல்

0 1 2 3 4

6. மனம் சோர்வு அடைவதனால் ஏற்படும் அறிகுறிகள்?

அ) எதிலும் ஈடுபாடு இல்லாமை பொழுது போக்கில்

உடன்பாடு இல்லாமை

ஆ) மன அழுத்தம்

இ) சீக்கிரம் விழுத்துக் கொள்வது

ஈ) நிலையற்ற மனம்

0 1 2 3 4

7. உடலிலுள்ள தசைகளின் மாற்றம்

அ) உடம்பு வலிகள்

ஆ) தசைவலி

இ) தசை பிடிப்பு

ஈ) அதிகமான தசை தளர்ச்சி

உ) பற்களை கடித்தல்

ஊ) குரலில் தடுமாற்றம்

எ) அதிக தசை இறுக்கம்

0 1 2 3 4

8. உடல் உணர்வு சம்பந்தப்பட்ட மாற்றம்

அ) காதில் இரைச்சல்

ஆ) மங்கலான பார்வை

இ) வெப்பம் மற்றும் குளிர் தாக்கம்

ஈ) பலவீன உணர்வுகள்

உ) ஊசி குத்துவதைப் போன்ற உணர்வு

0 1 2 3 4

9. இருதயநோய் சம்பந்தப்பட்ட அறிகுறிகள்

அ) அதிக இதயத்துடிப்பு

ஆ) நெஞ்சு வலி

இ) இரத்த நாளங்கள் துடிப்பதை போன்ற உணர்வு

ஈ) மயக்க உணர்வுகள்

உ) இதயத்துடிப்பு சீராக இல்லாதது போன்ற உணர்வு

0 1 2 3 4

10. சவாசம் சம்மந்தப்பட்ட அறிகுறிகள்

அ) நெஞ்சு அடைப்பு

ஆ) தொண்டை அடைக்கின்ற உணர்வு

இ) பெருமூச்சு விடுதல்

ஈ) மூச்சுத் திணறல்

0 1 2 3 4

11. இரைப்பை சம்பந்தப்பட்ட அறிகுறிகள்

அ) விழுங்குவதில் சிரமம்

ஆ) வயிற்று வலி

இ) வயிறு எரிச்சல்

ஈ) அடிவயிறு நிரம்பியிருத்தல் போன்ற உணர்வு

உ) குமட்டல்

ஊ) வாந்தி

எ) வயிறு இரைச்சல்

ஏ) வயிற்றுப்போக்கு

ஐ) எடை இழப்பு

ஒ) மலச்சிக்கல்

0 1 2 3 4

12. சிறுநீரக சம்மந்தப்பட்ட அறிகுறிகள்

அ) அடிக்கடி சிறுநீர் கழித்தல்

ஆ) உடனே சிறுநீர் கழிக்க வேண்டுமென்ற எண்ணம்

இ) மாதவிலக்கின்மை

ஈ) அதிகமான உதிரப்போக்கு

0 1 2 3 4

13. மற்ற அறிகுறிகள்

அ) வாய் வரண்டு போகுதல்

ஆ) சிவந்த முகம்

இ) தோல் வெளிர்ந்தல்

ஈ) அதிகமாக வியர்த்தல்

உ) பதற்றத்தினால் ஏற்படும் வலி

ஊ) முடி சிலிர்த்தல்

0 1 2 3 4

14. நேர்க்காணலின் போது ஏற்பட்ட நடத்தை மாற்றங்கள்

அ) அமைதியின்மை

ஆ) பொருமையில்லாமை

இ) கைகளில் நடுக்கம்

ஈ) கோபத்தில் புருவம் உயர்த்தியவாறு இருத்தல்

உ) கடுகடுப்பான முகம்

ஊ) பெருமூச்சு விடுதல்

எ) முகம் வெளிர்ந்தல்

ஏ) எச்சில் விழுங்குவது

0 1 2 3 4

APPENDIX - D

YOGA (RELAXATION) THERAPY

“For the restless mind it gives solace

For sick it is a boon”

“Yoga is a science of life to develop the sixth sense to its fullness and to equip man to enjoy peaceful life”. “Yoga means merging of individual soul with universal soul (GOD)”

(Yogiraj Vethathiri Maharishi)

The word Yoga is derived from the Sanskrit word “yuj”, meaning to bind, join and yoke .It is the reflection of the union of the body, mind and spirit.

TYPES OF YOGA

Asanas

Pranayamas

Bandhas

Chanting Mantras

Deep Relaxation

Meditation

YOGA (RELAXATION) THERAPY

It is a procedure of savasana a relaxing posture intended to rejuvenate body, mind and spirit.

The foundation of the yogic view of health is that the body & mind are part of one continuum of existence and the mind being more subtle than the body. It is believed that the individual will be able to perceive their nature and that will allow life to be lived more freely and spontaneously.

It encourages one to relax and focus on the present, shifting the balance from the sympathetic nervous system and the flight or fight response to the parasympathetic system & relaxation response. It lowers breathing & heart rate, lowers cholesterol level and increases blood flow to the intestine and vital organs. The practice of relaxation will open the subconscious and unconscious level of mind. Relaxation therapy can be used in all aspects of daily life to feel more mentally and emotionally balanced when encountering difficult situations. A sense of emotional mastery is attained if practised regularly.

The overall goals of yoga (Relaxation) therapy are happiness, inner freedom and optimal health not merely physical fitness and absence of disease. Yoga also offers a systematic ethical and spiritual path of consciousness transformation. Gentle yoga is used to strengthen muscle tone and is better than strenuous exercise. In Relaxation the body, mind and intellect are completely relaxed and one appears to be sleeping but the consciousness is functioning at a deeper level, and the subconscious and unconscious realms of mind get opened up. So Relaxation is in other words called as 'psychic sleep' in which you learn to relax consciously.

HEALTH BENEFITS OF YOGA (RELAXATION) THERAPY

PHYSICAL BENEFITS

1. Blood pressure. A consistent yoga practice decreases blood pressure through better circulation and oxygenation to the whole body.

2. Pulse rate. A slower pulse rate indicates that your heart is strong enough to pump more blood with fewer beats. Regularly practicing yoga provides a lower pulse rate.

3. Circulation. Relaxation therapy improves blood circulation. By transporting nutrients and oxygen throughout your body, yoga practice provides healthier organs, skin, brain and allows the body to redistribute energy in a more productive way thus relaxing the whole body.

4. Respiratory: Relaxation therapy decreases the respiratory rate. It also regulates the endocrine system and oxygenizes all the glands and organs. It ventilates the lungs, purifies the blood and increases the vital energy.

5. Cardiovascular endurance: Relaxation therapy lowers heart rate and improves oxygenation to the body resulting in higher cardiovascular endurance..It prevents heart ailments and improves cardiac function.

6. Organs: Relaxation therapy practice improve the ability of the body to prevent disease. Regular practise makes us more attuned to our body to know if something isn't functioning properly, thereby allowing for quicker response to treat disease..Important organs such as brain, heart, lungs, and intestines are activated and energised to function properly.

7. Gastrointestinal: Gastrointestinal functions have been shown to improve in both men and women who practice relaxation therapy.

8. Immunity: Yoga practice has frequently been correlated with a stronger immune system. It boosts immunity by increasing the level of

immunoglobulins that act as first line of defence in protecting from any infections and has more healing effect.

9. Pain: Pain tolerance is much higher among those who practice yoga regularly. It reduces and cures all types of pain in any part of the body

10. Metabolism: Consistent yoga practice helps to have a balanced metabolism and maintain weight. Aging is also prevented due to enhanced detoxification process. Body gets full rest as relaxation therapy regulates the circulation of blood, heat, air, life-force and bio-magnetism throughout the body.

PSYCHOLOGICAL BENEFITS

1. **Mood** -Overall well-being improves with yoga practice. The combination of creating a strong mind-body connection, creating a healthy body, and focusing inward can all lead to improvement in mood.
2. **Stress Reduction-** The concentration required during yoga practice tends to focus your attention on the work at hand, thereby reducing the stress.
3. **Anxiety. And Depression** - The negative feelings that you may be repressing are brought to the surface and released through relaxation exercise. Regularly releasing this negativity leads to a reduction of depression in many people. It reduces mind chatters, negative beliefs of disturbing emotions, level of fear, stress , and brings calmness
4. **Self-acceptance.and self control** - Focusing inward and realizing self is made possible through yoga practice .
5. **Mind-body connection** - controlled breathing with the relaxation posture will retrain your mind to find calm and peace within. It enhances concentration, focuses clear creative thoughts, giving a more positive emotional outlook, and improves sleep pattern
6. **Positive outlook on life** - Continued practice of yoga results in a balance of many hormones which brings about a more stable and positive approach to life.

7. **Hostility** - The relaxation therapy calms the entire nervous system and hence stress level is reduced.
8. **Concentration** - Researchers have proved that as least eight weeks of yoga practice can result in better concentration and more motivation.
9. **Memory and Attention** - Improved blood circulation to the brain as well as the reduction in stress results in a better memory and sharpens the ability to focus.

RELAXATION THERAPY

Time Duration: 20 – 30 minutes.

Each step :1 to 2 minutes.

STEPS

Lie down on a mat with the back such that face is upward. Keep the legs relaxed, about one and a half feet apart. Close your eyes. Keep the two hands away from the body with palms facing up. Keep the feet apart. Now start relaxing the body from the feet upwards. Relax all the ten parts of the body one by one as given below. Feet, Legs, Knees, Thighs, Hip, Stomach, Chest, Hands, Neck and Head.

1. Think of your feet and startrelaxing. While relaxing, give this auto-suggestion:

“My feet are relaxed, Blood circulation is good; heat circulation is good; air circulation is good; life force circulation is good; and magnetic energy circulation is good. I am getting sufficient strength in my feet, Let them take rest. The feet are relaxing. Relax, Relax, Relax.

NOTE: This should be repeated as you relax the other parts of the body mentioned below, by substituting the particular part as “legs”, “thighs”, stomach”, etc.

2. Next relax the legs(calf – muscle)
3. Relax the knees
4. Relax the thighs
5. Relax the abdomen
6. Relax the stomach
7. Relax the chest
8. Relax the shoulder and arms.
9. Relax the neck
10. Finally relax the head and face,

11. “Then ,think of each part from the head down to the feet, making sure all parts are relaxed.

(i.e.)The head is relaxed .The neck is relaxed. The shoulders and arms are relaxed. The chest is relaxed. The stomach is relaxed. The abdomen is relaxed. The thighs are relaxed. The knees are relaxed. The calf muscle are relaxed. The feets are relaxed.

“The whole body is completely relaxed”

Keep the eyes gently closed. Do not think of any particular thing. Think only of the breath going in and out,

“Lie in that position for 10 minutes.”

If you feel sleepy at the close of this relaxation, you may sleep for a few minutes.

GETTING UP

While getting up, first gently move the fingers, hands, legs and body. then, always roll over to the left side and slowly get up. Raise your arms above the head and join them together and bring your hands down and wipe your face gently with palms of hand.

CLOSING TECHNIQUE

“Let peace be within me”

“Let peace be within me”

“Let peace be within me”

ஓய்வு தரும் பயிற்ச்சி

பயன்கள்:

1. இரத்த ஓட்டம் சீராகிறது.
2. இரத்த அழுத்தம் சீராகிறது.
3. உடலில் உள்ள அனைத்து சுரபிகளும் சீராக சுரக்கிறது.
4. இருதய நோயிலிருந்து பாதுகாக்கிறது.
5. மன அழுத்தத்தை குறைக்கிறது.
6. மன பயம் நீங்குகிறது.
7. உடல் வலியை குறைக்கிறது.
8. உடலுக்கு சுருசுருப்பை தருகிறது.
9. தன்னம்பிக்கை மேலும் வளர்கிறது.

நேரம் : 20 முதல் 30 நிமிடம் மட்டும் போதும் ஓவ்வொரு நிலையும் : 1-2 நிமிடம் செய்தால் போதும்

இப்பொழுது முகத்தை மேல் நோக்கியவாறு வைத்துக்கொண்டு விரிப்பின் மீது தளர்ந்த நிலையில் மல்லாந்து படுத்துக் கொள்ள வேண்டும். கண்களை மூடிக்கொள்ளவும். இரு கைகளையும் கால்களையும் விரித்திருக்கும் படியாக தளர்வாக வைத்துக் கொள்ளவும்.

இப்பொழுது கால் பாதங்களில் தொடங்கி தலை வரை மேல் நோக்கியவாறு உடலை மனதினால் தளர்த்திக் கொண்டே வரவும்.

நிலை 1 : முதலில் பாதங்களை நினைத்துக் கொண்டு தளர்த்தும் பயிற்ச்சியை ஆரம்பிக்கவும். நீங்கள் உடலை தளர்த்தும் போதெல்லாம் மனதிற்ருள்ளே கீழ்கண்ட குறிப்புகளை

சொல்லிக்கொண்டே இருக்க வேண்டும்.
குறிப்பு :

எனது பாதங்களை தளர்த்திக் கொள்கிறேன், பாதங்களில் இரத்த ஓட்டம், வெப்போட்டம், காற்றோட்டம், உயிரோட்டம் சீராக நன்கு நடைபெறுகின்றன பாதங்கள் போதுமான அளவு பலமும் வலிமையும் பெறுகின்றன. பாதங்கள் ஓய்வு பெறட்டும் பாதங்கள் ஓய்வு பெற்றுக் கொண்டுருக்கிறேன்.

ஓய்வு, ஓய்வு, ஓய்வு.
நிலை 2: எனது கால்கள் இரண்டையும் தளர்த்திக் கொள்கிறேன்.

நிலை 3: எனது முழங்கால்களை தளர்ந்திக் கொள்கிறேன்.

நிலை 4: எனது தொடைகள் இரண்டையும் தளர்ந்திக் கொள்கிறேன்.

நிலை 5: எனது இடுப்பு பகுதியையும் உள்உறுப்புகளையும் தளர்த்திக்கொள்கிறேன்.

நிலை 6: எனது வயிற்றுப்பகுதியையும், உள்உறுப்புகளையும் தளர்த்திக் கொள்கிறேன்

நிலை 7: எனது மார்பு பகுதியையும், உள்உறுப்புகளையும் தளர்த்திக் கொள்கிறேன்.

நிலை 8: எனது கைகளையும், தோல்களையும் தளர்த்திக் கொள்கிறேன்.

நிலை 9: எனது கழுத்துப் பகுதியையும் தளர்த்திக் கொள்கிறேன்.

நிலை10: எனது தலைப்பகுதியையும் தளர்த்திக் கொள்கிறேன்.

நிலை 11: பின்னர் கீழ் நோக்கியவாறு தலை முதல் கால் பாதம் வரை தளர்ந்திருக்கின்றது என்பதை உறுதி செய்து கொள்வதற்காக மீண்டும்

ஒரு முறை மனதினால் அனைத்து உறுப்பையும் நினைவில் கொள்ள வேண்டும்.

உடல் முழுவதும் ஓய்வு பெற்றிருக்கிறது. ஓய்வு, ஓய்வு, ஓய்வு நிறைவாக கண்களை மூடியவாறு சுவாசத்தை கவனத்தில் கொண்டு 5-10 நிமிடம் வரை இருக்கவும். உறக்கம் வந்தால் சில நிமிடம் அப்படியே உறங்கி விடலாம்.

எழுந்திருக்கும் போது கைகள், கால்கள், தலை, உடல் என அசைத்து பிறகு இடது கையை தலைக்கு மேலே நீட்டி தரையில் வைத்து, இடது புறம் உடம்பை திருப்பி, வலது கையை உடம்புக்கு முன்புறம் ஊன்றி பக்கவாட்டில் எழுவது நலம். அமர்ந்தவுடன் இரு கைகளையும் தலைக்கு மேலே தூக்கி வணக்கம் செய்வதை போல வைத்துக் கொண்டு பின்னர் கீழே இறக்கி முகத்தை இரு கைகளால் வருடி விட வேண்டும்.

முடிவு:

“என்னுள் அமைதி நிலவட்டும்”
(3முறை)

அமைதி, அமைதி,
அமைதி.

வாழ்க வையகம்! வாழ்க வளமுடன்!



